

CHILDREN'S HEALTH AND HAPPINESS

BY
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Illustrated with Drawings of the Author's Children



LONDON
HEALTH FOR ALL PUBLISHING COMPANY
(*Natural Healing Ltd*)
17-18 Henrietta Street - Strand - W C 2



DEDICATION

To my children—my teachers,

AUTHOR'S PREFACE

A HEALTHY newborn baby is one of the most perfect and marvellous things that anyone can ever see. He is full of potential health and happiness, and also of great potential creative power. To look after him, and help him to achieve some part of his physical and mental possibilities is a wonderful job for any woman, but when he is her own son, then the job becomes unique. Women who make motherhood their vocation, and who do their utmost for their babies, utilising all their varied abilities, find it the best job they can imagine.

There is at last, I believe, a swing of the pendulum away from the extreme feminist movement, back towards femininity, and a truer appreciation of women's real worth, and the dignity of marriage and motherhood. Even so, there is still a tendency for many women to regard being a good doctor, nurse, or teacher to some other women's children as a higher vocation than looking after their own, and to regard motherhood as a sort of Cinderella among possible jobs. But being a mother is the oldest of all professions for women, and since it was Cinderella who was the Princess in disguise and who eventually wore the glass slipper, mothers can feel in their hearts that they, too, are the Princesses in disguise, and can well be proud of their job, and regard it as a vocation of the highest order. Of mothers it could well be said:

" . . . they will maintain the fabric of the world,

And in the handywork of their craft is their prayer."

Ecclesiasticus xxxviii, 34 (Revised Version).

Not every woman can train to be a good doctor, but the vast majority can train themselves to be good mothers. That is, mothers who have learnt how to nourish a child, so that he suffers neither from deficiencies nor from excesses, who have trained themselves in self-control and self-reliance so that they can pass something of these, and their benefits, on to a child, and who have realised the need to love the child and provide emotional stability, and to provide also some food for the child's mind and soul.

There is much actual manual labour in caring for children, and this personal service is closely intertwined with mother love. The amount of manual labour entailed is sometimes excessive, but to try to transfer all the services a mother does for her baby to some

third person would be 'an impoverishment of the spiritual bond between them, for the baby gives his love to the person who serves him, and much love can develop through such labour.

It is surely safe to say that children were meant to be happy and healthy, and were not meant to suffer pain, ill-health, unhappiness and fears, and it is mothers who, more than anyone else, can keep these things out of children's lives. It is mothers, more than doctors, who have the real powers of prevention in their hands, for many of the "cures" now endorsed by present day medical theories are both painful and frightening to children. The removal of tonsils, and the use of the penicillin injection needle, may have much medical conviction behind them, but they are painful and fearsome things to children, and are therefore best avoided if conceivably possible.

Since health and happiness should be the birthright of all the children in the world, whatever may happen to them in later life, the more we mothers can do to keep our children healthy, and the more true happiness we can bring into our family circles, the better mothers we shall be, and the greater service we shall do humanity. Both father and mother should be able to have lots of fun with their children and genuinely enjoy their company.

It is because healthy and happy families, whose lives are disciplined and religious, are the only sure foundation for a united peaceful and disciplined world, and in the tentative hope that it may be some slight help along the above lines to both fathers and mothers, that I offer this book to those who care to read it.

MARGARET BRADY

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CHILDREN'S HEALTH AND HAPPINESS

CHAPTER I

THE MOTHER'S POTENTIAL POWER

IF we want our children to grow into "Men like Gods" then we must provide them with the food and environment suitable for gods. Much of the food, and many of the living conditions, provided for children to-day are not fit even for men, and certainly not for gods.

There is an immense potential power for good in these two words food and environment—a power that has hardly begun to be utilized, but one that needs to be utilized to its fullest possible extent if humanity is to be really healthy and really happy.

As a first step women should know that it is much easier for any normal healthy girl to bear and rear healthy and happy children than it is for the most expert specialist or psychologist to "cure" them once they have become ill. In recent years we have tended to shelve our own natural responsibilities for our health so much that this may seem to be a reactionary idea to some people; but our health lies in our own, not in our doctor's, hands.

To give their children beautiful little bodies, full of energy and vitality, mothers need to acquire a certain amount of knowledge, to realize their own paramount responsibility for their children's health, to understand their own potential powers and to have confidence in their ability to carry out any new ideas.

The mother has first of all to remind herself that her baby has to grow from a microscopic piece of protoplasm, through childhood and adolescence, to an adult human being weighing over a hundred pounds. This is a creative process, and, as in all creative processes, the value of the finished product is conditioned by the kinds of raw materials used in its creation. Though most babies do grow to adult life, their health and happiness in their childhood, and their vitality and value as citizens when grown up, are tremendously affected for good or ill by the raw materials provided

by their parents, for their growth and development. This is why food and environment are so much more important for children than they are for adults.

Motherhood is not an unequal battle against unknown forces and incalculable odds. Mothers need not be in constant dread of sudden invasions by sickness-dealing germs over which they have no control. Mothers have the power to build such health into their children that there is little scope for germs to get a foothold. It goes a long way towards taking many of the fears and anxieties out of motherhood when they realize that they can work with Nature in a partnership to rid their children's system of any adverse conditions which alone have made disease possible.

As far as knowledge goes at present, complete immunity for all children from all diseases and in all circumstances is illogical and probably unattainable. It is possible, however, so to nurture children that their normal condition of health is on a much higher plane than it has ever been in the past, and if vitality could be measured it is possible it might be increased one hundred per cent. above its present average level. Children's bodies would then be able to deal with all normal germs without being appreciably inconvenienced. What is now called disease appears when these endemic forms of microscopic life get out of hand, owing to a low state of vitality in their host, the child concerned.

It is not really fair to blame the germs for bouts of disease, though they do form convenient scapegoats for human ignorances and inefficiencies.

The mother of a "delicate" child often thinks she is just unlucky in her offspring, because health for her child means merely a state of unstable equilibrium between two periods of obvious ill-health; but "luck" is not the major issue, and once a mother appreciates this she will be surprised what wonders she can do for the most persistently delicate little person.

No child should need to have regular laxatives, and every child should have perfect teeth, a clear skin, bright eyes and be full of vitality. For all but a few children, with hereditary handicaps, much of this physical improvement could be achieved in a few years, and there are immense possibilities for further improvements if optimum food and optimum environmental conditions could be maintained for, say, three generations.

Combined with an improvement in the physical make-up of children there would tend to be a corresponding improvement in

their mental and spiritual make-up. A great deal of "naughtiness" in the nursery, and general difficulties in management and training, are often due to faulty diet and wrong environment. The tiresome and irritable child and the backward child may be demonstrating a shortage of sunshine and vitamins rather than a superabundance of original sin or unavoidable stupidity.

We cannot expect our children to rise to their highest potential mental and spiritual development if their physical development is hampered by inferior food and faulty conditions of living. The Latin proverb *mens sana in corpore sano* (a healthy mind in a healthy body) is still as true to-day as it was when it was written. If the mind and spirit are to be free to develop to better and higher stages, man must first at least be free from his present eternal preoccupation with his own health. Nowadays we are more, not less, preoccupied with our physical health than were our primitive ancestors, our physical ill-health being a perpetual drag on all our activities, both mental and physical, and greatly hampering our potential spiritual progress.

An Example of Effects of Food and Environment

A perfect demonstration of the effect that **food and environment** can have on the development and growth of *young and immature* creatures is given by the honey bee. Bees are well developed along their own lines, and live in a highly organized community. When the community desires to produce a new queen bee it does it solely through the agency of food and environment.

An egg that would normally develop into an ordinary worker bee is, by special food and special living conditions, caused to grow into a queen bee. The egg is laid in an extra-large cell, of a particular design, and when the grub hatches out from the egg, it is fed with a different food, the royal jelly. The egg and the grub are both identical with the thousands of other eggs which all develop into worker bees. It is simply the superior food (the royal jelly) and the superior environment (the cell) that cause changes to take place in the grub's development *if started young enough*. The process of making a perfect queen bee can be initiated any time before the grub is three days old.

If all the world's children could have a similar type of improvement in *their* food and their environment, then the human race might be expected to take immense leaps forward physically, mentally and spiritually. Such an improvement is physically

possible and morally desirable, and therefore poverty, ignorance, war and vested interests which prevent its fulfilment must be, by mankind, eventually swept away.

The thesis of this book is based on the premise that good health and bad health both follow a logical sequence of events, over which mothers themselves have a very large measure of control. Men and women should not have to go through life a prey to ill-health, and to the *fear* of ill-health, either for themselves or for their children. WE MUST NOT BE AFRAID.

While it is not possible to ensure that all children will, in one generation, become one hundred per cent. healthy, or never be ill, still if improved ideas of

(a) food (or, more broadly, all the raw materials) and

(b) environment (both spiritual and physical)

are followed, then both minor upsets and infectious diseases, such as attacks of measles and so on, will be well within the body's own powers of control and cure.

If we want our children to be healthy (*i.e.*, "whole"), well-balanced little people, it is only common sense to see that they have whole, well-balanced food. Research work in both England and America is beginning to demonstrate scientifically much of what is here set out on the grounds of common sense and practical experience with children.

Raw Materials and Environment

It should be clear that the health of children must depend a great deal on the following:

(1) *The Raw Materials out of which they Grow*

(a) The **food** that they eat.

(b) The **air** that they breathe.

(c) The **sunshine** that they absorb.

(d) The **water** that they drink.

and of these the **food** they eat is probably the most important.

(2) *The Environment in which they Live*

(a) *Physical Environment*—comprising the physical condition in which the child lives, the house, garden, clothes, toys, school, and also his exercise and sleep.

(b) *Spiritual Environment*—comprising the love the child receives in the home, especially from the parents, the

mental and spiritual food provided, the emotional atmosphere of the home, and the general training and management.

While the raw materials, and particularly the child's food, are basically the most important factors for healthy growth, the child's environment conditions the value of these, either for good or for ill. For example, a child fed on an absolutely ideal diet will not thrive in an ideal way if there is friction and controversy in the home, especially if such controversy concerns the child or his food. On the other hand, a child whose food is *not* ideal will often thrive amazingly well if he is living in an atmosphere of love and happiness, with plenty of sunshine and fresh air.

Food and environment are complementary, for the most perfect environment with faulty food again cannot produce perfect health.

It is the mother's enormous but most rewarding job to see that her baby has the right raw materials needed for growth, and also to provide the right physical and spiritual environment, so that development can proceed with maximum ease.

It is usually easier to provide the right raw materials and a satisfactory physical environment than it is to provide an ideal spiritual environment; but even so, there is a great deal for mothers still to learn about providing the right raw materials for their children, particularly what the right foods actually are.

Avoidable Ailments

Fortunately the common ailments of childhood—coughs, colds, constipation, decayed teeth, etc.—are very largely avoidable. Mothers still feed poor health into their children by feeding them with the wrong foods and neglecting to use the health-giving powers of sunshine, fresh air, exercise and sleep. They then fly to the doctor expecting him to cure the effects of their mistakes with "magic" little bottles of medicine or with pills or injections of sera or other matter totally foreign to the normal healthy working of children's systems, or even by the painful operations of cutting away parts of their children's bodies.

The cleverest specialist in the world cannot hope to give a child health when the very foundations of his growth have been, and are being, imperfectly laid down through faulty food. Dentists can stop the holes when they appear in children's teeth, but they cannot stop the holes from coming. The mother, on the other hand, can attempt this very thing by having the right food herself during

pregnancy and breast-feeding, and by seeing that her child has the right food out of which to build teeth that do not decay.

The doctor can only specialise in ill-health, and what is called preventive medicine, but the mother has it in her power to create positive health itself.

If the right foods are chosen, properly grown and prepared, and provided in suitable proportions, children will not only develop healthily and well, but there will be no need to try to make good deficiencies by relying on the medicine chest. A little more money may need to be spent on fresh fruits and vegetables, but much less will need to be spent on medicines and doctors' bills. It is rather a depressing thought that before the war, more money was spent on chemists' bills than on home produced food.

Mothers know that their job is in the highest sense a constructive one, and when they feel convinced that they are working on the right lines towards creating healthy, well-trained and happy children, it brings them great joy and satisfaction and all the reward they want for the exacting rôle of motherhood.

Children who have received the right raw materials for their growth, and who have grown up in the right type of environment, have the best possible chance of developing into healthy, well-balanced and happy adults, able to take their places in the world and to cope successfully with all the stresses and strains of modern life. They have a good chance of being among the most valuable of our citizens of to-morrow.

CHAPTER II

THE CHILD AND HIS RAW MATERIALS

FOOD

THE most important of all the raw materials that go to the making of an ideally and vitally healthy child is his **food**. Though home conditions, fresh air, sunshine, housing, exercise and school make their own valuable contributions to the child's health, all of them must take second place when compared with the importance of the child's food.

All children get food of one sort or another and some children are much better fed than others, but very few, however wealthy their parents may be, get ideal food—that is, food which is ideal in *quality*, even though the food of wealthy children is often superabundant as regards its quantity.

Fortunately, an ideal diet is a matter of knowledge and care rather than mainly of money, and the parents of the vast majority of children could enormously improve the quality of their children's food once they had acquired the necessary information.

Defects in Quality

It is said that "you cannot make a silk purse out of a sow's ear", yet many mothers act as though they expect their children to be healthy irrespective of whatever sort of food they are given, and to build first-rate health for their children out of what is often only third-rate food.

The average "good, nourishing food" is far from being an ideal diet for a child, since it is seriously deficient in many respects.

Mineral salts and vitamins are designed by Nature to occur distributed throughout the foods, often in minute quantities and in all sorts of combinations. They are not designed to be taken in the form of medicine, pills, capsules or tonics at the end of a meal that has been deficient in them. Also, they probably only do their work properly in a child's body when in certain natural combinations with each other and with other substances, which combinations are, at present, little understood.

Further, though some of the mineral salts needed for healthy growth have been known for some time, it is now known that far more are necessary than were at first recognized. These small

amounts of essential substances are called "trace elements". They are needed only in minute amounts, and dietitians realize that there may be other essentials to health, either unidentified vitamins or undiscovered trace elements whose value has not yet been demonstrated, but whose absence lowers the quality of the diet. Their value may be only as catalytic agents—that is, as substances which help the proper assimilation of other substances—but this does not alter their importance.

The way to overcome the known deficiencies is comparatively easy, namely, by reforming many of our "civilized" food habits, and the evidence goes to suggest that unknown deficiencies might automatically be overcome at the same time. It is not a question of relying on the chemist's shop, but simply of selecting and using correctly the foods provided by God for the human race.

Biological Properties

Malnutrition and deficiency diseases are usually ascribed to *chemical* reasons—that is, to shortages of proteins, fats, mineral salts or vitamins. But in addition to these it is necessary also to consider the biological factors, for the quality of food eaten depends enormously on its biological properties—that is, on how it has been grown and how afterwards treated—as distinct from its purely chemical properties.

There are three vitally important biological properties of foods—their sunshine factor, their "wholeness" and their freshness—which have an immense effect on their quality and hence on their value in the diets of children.

Food tables show the chemical analyses of foods into their component parts of protein, carbohydrates, mineral salts and vitamins, but not their biological properties. Modern diets, especially curative diets, are usually based on the body's estimated needs of these various food groups, and the diets are built up from the information given in the appropriate food tables. These tables cannot, alone, produce adequate data from which to construct an ideal diet, since they entirely omit the biological properties of foods, so that the resulting diet may easily be seriously deficient in this respect.

Calories and Energy

The energy value of diets is measured by calories. These are not, however, an altogether satisfactory way of measuring even the energy value of foods, since they take no account of the various foods' biological properties.

It is quite easy to devise a diet from "whole" foods and "raw" foods which will supply abundant energy and vitality, and which falls well below the theoretically estimated minimum needs of 3000-4000 calories per day for an active man.

The fallacy of using the caloric value of foods to get an accurate measure of their energy value is well illustrated by bread. A hundred per cent. wholewheat bread is more sustaining, and proves itself to be a more lasting and useful source of energy, than is an equal weight of white bread, yet the actual calorie value of wholewheat bread is *lower* than is the calorie value of white bread.

Detrimental Civilized Food Habits

The *quality* of food is its most important factor in producing good or bad health in children. Good-quality food produces good health and inferior-quality food produces inferior health. Yet the majority of children are reared through their vital formative years on food of very much poorer biological quality than is necessary, largely through the general ignorance and lack of interest in the subject on the part of parents and schoolteachers and those in charge of their food generally.

An incredible amount of damage is done to the quality of the food given to children both by the ways it is grown and by means of the various methods of "processing" it and preparing it for them. Some of these are within the mother's control and some of them are not, at any rate for the present.

Civilization is itself responsible for its own burden of ill-health, through its habit of damaging its food. Many primitive races all over the world, if safely out of touch with civilization and civilization's food, enjoy a standard of health and general fitness far above that of the civilized communities. Many striking examples of this, specifically with regard to the teeth and jaws of these races, are given by Dr. Weston Price, a dental surgeon of Cleveland, Ohio, in his *Nutrition and Physical Degeneration*.

The self-inflicted damage done by civilization can be classified as follows:

- (1) Before the food reaches the kitchen.
- (2) After the food reaches the kitchen.
- (3) Errors in the selection of the foods available.

The loss of essential biological properties and of "wholeness" brought about by the first two is enormous.

(1) DAMAGE TO QUALITY BEFORE THE FOOD REACHES THE KITCHEN

(a) Cultivation of Sub-Standard Crops

Anyone who believes that the kind of food children eat influences their vitality and development should find it easy to take one or two steps further back, and appreciate that the value of the food eaten must depend also upon the raw materials from which it has been built up, in this case largely the soil; and, further, that the power of the soil to confer health on the plants that grow from it must depend on its own health and "aliveness"—that is, on whether it is in "good heart" or not.

In recent years chemical fertilizers have frequently taken the place of farmyard manures. However, there is a considerable amount of evidence to show that many chemicals in common use as fertilizers are in the long run bad for the land, and consequently bad for the crops and for the people who eat them.

Crops grown with chemicals in place of organic manures (farmyard manure and compost) can easily be sub-standard as regards their biological quality, even if their absolute quantity is temporarily increased. They may lack stamina, and their normal powers of withstanding disease and adverse conditions generally may be lowered.

We are so used to a low standard of health being normal that it is easier to show evidence of the benefits of organically grown foods than it is to show that disease or ill-health can be the actual result of chemical fertilizers. However, the health and vitality, sound teeth and immunity to disease resulting from living on organically grown whole foods are the normal, and the susceptibility to disease, decayed teeth, constipation and catarrh are the abnormalities. They are the forms of ill-health that come with superficially satisfactory but biologically sub-standard foods whether due to methods of growth or of manufacturing and processing, or with foods eaten in the wrong proportions.

The following five pieces of evidence should prove illuminating:

(i) The late Sir Albert Howard's now world-famous work in India (begun in 1910), by which he demonstrated that when cattle were fed with food grown on organically manured land, with no soluble chemical fertilizers, they became virtually

immune to foot-and-mouth disease, even when in contact with serious cases.

(Sir Albert Howard:

Farming and Gardening for Health and Disease.)

(ii) Sir Robert McCarrison lived with the Hunza tribe of natives in Northern India, who lived in their own isolated valley, growing their own food on land to which no chemical fertilizers were added and to which all animal and vegetable wastes were religiously returned. He says that they were "unsurpassed in perfection of physique and in freedom from disease in general".

(Sir Robert McCarrison: *Nutrition and National Health.*)

(iii) Mr. Brodie Carpenter found by practical experience in a residential school that the condition of the children's teeth improved in the most spectacular way after a period of having their food grown from organically manured soil (in this case no fertilizer had been used on the land, but it had been enriched in previous years with night soil).

(E. Brodie Carpenter:

Dental Magazine and Oral Topics, March 1946.)

(iv) Laboratory experiments in 1930 by Rowlands and Wilkinson showed how fantastically better nutritional results were obtained when rats were fed with organically grown seeds (pig manure was used) than when fed with similar seeds grown on land treated with inorganic chemical manures.

(Rowlands and Wilkinson: *Biochemical Journal*, Vol. xxiv, No. 1, 1930. Reported by Dr. Picton in *Thoughts on Feeding.*)

(v) The reduced stamina of crops grown with chemical fertilizers is demonstrated by the fact that hand in hand with the increased use of chemical fertilizers has gone an increase in the degree and incidence of plant pests and diseases of all kinds, creating an enormously increased demand for chemical dusts and sprays as insecticides, to try to combat the previously trifling diseases.

While there is still a great deal to be learnt about the ideal treatment of the land, and ideal methods of growing our food, the above extracts serve to show something of the significance of the problems, and to encourage mothers to try to see that the foods they give their children have not been damaged by the method of their growth. However carefully imperfectly grown foods are

afterwards cooked and prepared, any deficiencies inherent in them through their method of cultivation cannot be repaired in the kitchen.

(b) The Way Food is Refined

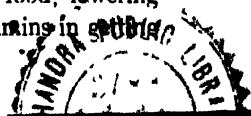
(i) PRODUCTION OF WHITE BREAD

The most serious and the most depressing example of the damage done to children's food by "refining" it is given by bread. Two hundred years ago, bread was made from the flour obtained from grinding up grains of wheat with millstones. The whole of the grain itself went into the flour. Then came roller milling, which, by *rolling* the grain instead of grinding it up, made it much easier to sift out certain portions—the outer covering (or bran) and the embryo of the grain, the germ of life itself—since these parts were larger particles than the bulk of the grain, the endosperm or starch cells. Because the bran and the germ were both larger and darker than the rest of the flour, it was felt to be an "advance" to remove them, for by so doing the final flour was made both finer and whiter. •

But with the removal of the bran and the germ the human race lost a quite untold amount of physical health, for these particles, besides providing useful roughage for the digestive system, also contained the larger proportion of the mineral salts and vitamins originally present in the wheat grains. Apart from minor losses, the major losses were of iron and much of the complex group of B vitamins.

Further, having started out with the object of producing a white flour, new means were devised for making it still whiter, and the poor flour, having had its best parts removed, was then subjected to further chemical treatments to bleach it whiter still. The miller could point proudly to a "pure white" flour, but this was not an attribute to admire, for it was in fact the ghastly pallor of death. Even if parents themselves have an acquired preference for white bread they should not inflict this on their children, but should make sure that they, at least, get real bread.

It is now known that the starch in cereal foods, such as bread, needs adequate B vitamins for its proper utilization. In whole-wheat bread adequate vitamins are present; in white bread they are not, so that white bread is a serious deficiency food, lowering the body's often already inadequate supply of B vitamins in itself assimilated.



The seriousness of the loss can be seen pictorially in the following diagram, though figures for real one hundred per cent. bread are not available.

THE RELATIVE VALUES OF THREE TYPES OF BREAD

In the Ministry of Food's publication, *Manual of Nutrition*, 1945, there are given some detailed analyses of various foods, and also the estimated amounts of some of the dietetic constituents needed daily by certain grades of people.

As far as wholewheat bread is concerned, if we take just its content of iron, vitamin B₁, riboflavin and nicotinic acid, the actual differences between white bread, national bread and wholewheat bread appear to be comparatively small. If, however, we work them out as a percentage of one day's estimated needs, the differences show up in their true proportion.

In the following table, the figures are worked out as a percentage of the daily needs of a child of twelve years, as supplied by 8 oz. of three types of bread, from the figures supplied by the Ministry of Food.

	Iron (milligrams)	Vitamin B ₁ (milligrams)	Riboflavin (milligrams)	Nicotinic Acid (milligrams)
<i>Estimated daily needs of child of 12 years</i>	12	1.2	1.8	12
<i>Amount supplied by</i>				
8 oz. white bread (70-72% extraction)	1.6	.08	.08	1.2
8 oz. National bread (85% extraction)	4.0	.40	.24	2.4
8 oz. Wholewheat bread (92% extraction)	5.6	.72	.40	4.8

Expressed as a percentage of the estimated daily needs:

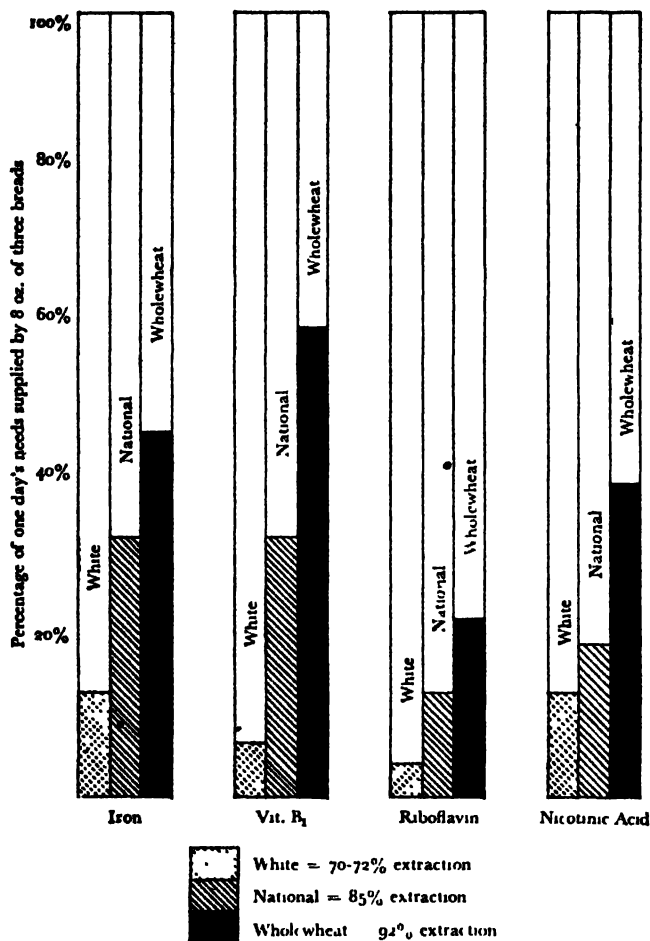
	Iron	Vitamin B ₁	Riboflavin	Nicotinic Acid
8 oz. white bread gives	13.33%	6.67%	4.44%	13.33%
8 oz. National bread gives	33.33%	33.33%	13.33%	20%
8 oz. Wholewheat bread gives	46.67%	60.0%	22.22%	40%

The significance of these figures can be seen at a glance in the diagrammatic representation on the next page.

The losses entailed by milling for white flour produce a state of near-malnutrition and near-deficiency for those who eat it, especially if, as in poorer families, bread forms a disproportionately high part of the total food eaten, even though debilitating symptoms of anaemia, beri-beri or pellagra may not be apparent. White bread also tends to reduce fertility.

THE RELATIVE VALUES OF THREE TYPES OF BREAD

Diagrammatic representation of the iron and B vitamins supplied by 8 oz. of three types of bread, expressed as a percentage of the estimated total daily needs of a child of 12 years.



Not Worth the Losses

Since it has been proved that "refining" the wheat berry to make a white flour of 70 per cent. extraction (or even the National flour, of 85 per cent. extraction) reduces its nutritional value, it is worth considering that, by analogy, refining even to 92 per cent. extraction might depreciate it to a certain extent, as other still unrecognized and unanalysed benefits may possibly be lost in the process.

DEFICIENCIES OF WHITE BREAD

The deficiencies brought about by white bread are now so well recognized that attempts are often made to make them good by giving a child vitamin B and iron tonics. The germ originally extracted from the wheat is now packeted and sold at an enormously enhanced price as a good tonic food for children and expectant mothers. Further, attempts are officially made to "reinforce" white flour by adding calcium to it, and the addition of some of the B vitamins originally extracted has also been suggested. But the wheat germ cannot be mutilated and then reconstituted in this way. The B vitamin groups are too complicated for them all to be synthesized, and only a small portion of the losses removed by "refining" the flour can be reintroduced. Even then it is doubtful if they are as valuable a form as they were before refining, and the wholeness and balanced proportion of the wheat berry are completely destroyed by all this processing.

Wholewheat bread deserves to be called the "staff of life" since it contains much of what the human body needs in natural association and proportion. White bread, on the other hand, is only a broken reed by comparison. There is no way of measuring the amount of ill-health and deterioration in the general level of good health that have become the portion of the human race through generations of living on bread and other foods that have been deprived of their "wholeness" by refining and processing.

This damage done by refining flour to make it white is not unrecognised by the Ministry of Food, even if they do little about it, for the Ministry itself says:

"It is impossible, therefore, to be certain that artificially fortified flour will give results comparable to those from flour in which the known vitamins are retained, together with the less perfectly known constituents of the wheat berry."

(*Conference on post-war loaf by Ministry of Food, 1945.*

H.M. Stationery Office, Cmd. 6701.)

Probably the greatest single improvement in the orthodox diet that mothers can bring about for their children is to make their own bread, using fresh yeast and one hundred per cent. wholewheat flour, stone-ground from wheat that has been organically grown, with no artificial manures used on the land.

The benefits entailed by the regular use of such bread are out of all proportion to the effort entailed, and once the mother has made it a few times, the job fits into other jobs in the household routine with amazing ease, and takes comparatively little time.

The fresher the flour used the better, and all wholewheat flour should be as freshly ground as possible, and should be correctly stored in a cool dry dark place to reduce deterioration to a minimum. Some people have home mills for grinding their own flour, so as to have it absolutely fresh.

SKIMMED MILK AND "SKIMMED" WHEAT

White flour bears to wholewheat flour the same relationship that skimmed milk bears to full-cream milk. That is to say, when the wheat berry is milled to produce a snow-white flour, the valuable part of it containing much of the mineral salts and vitamins is removed in exactly an analogous manner to the removal of fats and vitamins if cream is skimmed off milk. Skimmed milk, however, is not fed to our children, but skimmed wheat unfortunately is. The case for wholewheat bread for children is just as strong as is the case for full-cream milk.

POLISHED RICE AND REFINED SUGAR

The same sort of damage to the value of foods is done when natural sugar is refined and chemically treated to make it white and "pure," when black treacle is "refined" to make golden syrup, and often when oats are treated before reaching the public, and when natural brown rice is skinned and polished to make it white.

In all these cases the foods lose much of their most valuable attributes through man's passion to refine them, whether it is done in ignorance or for commercial profit.

CLEANLINESS CONFUSED WITH REFINING

Our modern ideas of hygiene are excellent, and the insistence on a high standard of cleanliness in everything connected with food is essential. The unfortunate thing is that ordinary cleanliness has become confused with the ideas of refining and processing foods. A good, clean, natural food such as an apple is not a "pure" anything. It is a splendid mixture of all sorts of valuable things. The skin should be wiped clean before being eaten, but it should never be purified or "refined". This confusion of cleanliness with refining has led to children being fed on refined—i.e., impoverished—foods under the guise of being given clean foods. Children's food must be clean, but it should not be impoverished. The whiteness of flour and the whiteness of sugar and rice have, most unfortunately, become synonymous with cleanliness and purity. If potatoes are to be baked in their skins, or carrots are to be eaten raw,

they need only to be scrubbed absolutely clean, and all "eyes" or damaged parts completely removed. Such cleaned vegetables are still "whole" unrefined foods.

(c) Processed Foods—

(i) PASTEURIZED MILK

An example of the damage done to foods by processing is that done to milk by pasteurizing it, whether this is carried out by the H.T.S.T. Method, when milk is kept at the high temperature of 162 degrees Fahr. for the short time of fifteen seconds, or by the "holding" method, when milk is kept at between 145 and 150 degrees for thirty minutes.

These treatments do nothing to encourage the production of clean milk from healthy cows, which is what we need, or to remove any contamination. When germ-ridden milk is pasteurized nothing is done to remove the dead bodies of the destroyed germs or their effluents. These must all remain in the milk.

PASTEURIZATION CAN DAMAGE THE QUALITY OF THE MILK

- (i) By reducing or destroying its "aliveness".
- (ii) By damaging the enzymes.
- (iii) By altering the proteins.
- (iv) By altering the calcium salts.
- (v) By destroying some of the vitamins, particularly vitamin C.

Farmers do not feed pasteurized milk to their calves if they want them to develop satisfactorily, and experimental rats fed on pasteurized milk show serious deterioration, especially in their fertility, if fed on pasteurized milk for three or more generations.

This damage to milk by processing is well known to exist, but is considered to be the lesser of two evils by many medical men, and commercially advantageous by the large milk combines, since pasteurized milk can be sold in a much staler condition than raw milk can without the housewife recognizing its defects, since these are mainly biological. Certainly dirty milk can be a serious carrier of disease, but fresh, clean, raw milk can be a greater benefit to children than pasteurized milk ever can.

Instead of processing the milk and so lowering its quality, stress needs to be laid on keeping the cows healthy, on producing the milk in a clean manner, and, above all, on immediate cooling and filtering and then keeping the milk cold. If this were done there

would be no case at all for pasteurization, and the nation's children would gain proportionately. The object of pasteurizing milk is to prevent the bacteria from multiplying, but if the milk is kept at a low temperature the bacteria do not multiply, so there is no need to pasteurize it.

(ii) PACKETED BREAKFAST FOODS

Another example of processing is the expensive packet breakfast cereals which proclaim themselves as wholewheat products. They may have been wholewheat once, but it is exceedingly doubtful if, after the various processes of heat and pressure to which they are subjected, they have much of the initial value of wholewheat left.

"Quick cooking" oats, again, have been processed, and though this may be convenient it does not improve the food value of the product.

(iii) IRRADIATED MARGARINE

The processing of fats to make margarine, and of irradiating them to give a vitamin D content, may possibly be an advantage, but this is more because our methods of feeding and living generally are at fault than because irradiation of our foods is a fundamentally sound thing to do.

(d) Preserved and Tinned Foods

In our modern world of large cities and general rush, the preservation of some foods and the utilization of preserved foods on some occasions, even by the mother who wants an ideal diet for her children, may well be inevitable. This does not, however, make preserving of itself a good thing. It is safe to say that *all* forms of preserving lower some aspect of the quality of the food preserved, but the food may still retain sufficient value to make it a useful contribution to the rest of the diet in certain circumstances.

A good example of this is home-bottled fruit. Blackcurrants, particularly, are a most valuable food, which are unobtainable fresh in the winter, and so bottled ones are a good addition to the winter diet. It would, however, be foolish to buy tinned or bottled blackcurrants to use in the summer because they were less trouble to serve than picking and stringing raw blackcurrants.

Dried herbs and bottled tomatoes also are valuable preserved foods for the winter. The modern tendency, however, is often to use tinned foods for convenience rather than because they are a useful supplement to the diet, and to use them far in excess of

their optimum value. Evaporated milk, for example, is a most useful addition to the diet and an invaluable standby in an emergency, but it does not satisfactorily supersede fresh, clean, raw milk so far as its quality goes.

(e) Adulterated and Chemically Treated Foods

At the present time powdered chalk is added to bread, with the idea that it will "reinforce" the refined flour from which much of the value has been removed. But adding powdered chalk to flour is just adulterating it and may be definitely harmful to some individuals. Further, the flour is bleached with agene (NCl_3), and yet the use of this substance to bleach flour has now been proved to be a serious cause of hysteria in dogs. Again, sulphur dioxide (SO_2) is used to preserve foods, particularly fruits, even though it is bad for the digestion. Its use in the bottled orange-juice for babies is said to be one of the reasons why this sometimes upsets some babies.

(2) DAMAGE TO QUALITY AFTER THE FOOD REACHES THE KITCHEN

(a) Further Deprivation of Biological Factors

Failure to appreciate the importance of biological factors means that a good deal more damage is done to this aspect of the quality of the children's food by the mothers themselves.

(i) SUNSHINE FACTOR

The *value* of *raw foods* is very great, and children whose tastes have not been vitiated by wrong feeding seem to recognize it instinctively. Far too little food is eaten raw in most families, and yet children have a natural enjoyment for eating fruits and vegetables raw. They may prefer a raw carrot or a piece of raw cabbage heart to the same thing when cooked, and yet mothers (and nurses and even teachers) often consider this most natural and healthy preference a bit "odd" and will make every effort to coax the child to eat cooked vegetables, which he does not relish, instead of the raw ones which he does.

Part of the virtue of raw foods is due to their "aliveness" and the "stored sunshine" or *sunshine factor* which they contain. A fresh uncooked cabbage is alive; a cabbage that has been cooked (however carefully) is not. Cooking dissipates the sunshine factor—that is, it dissipates the potential energy of the stored sunshine and "kills" the food.

This aliveness of fresh, raw foods is something quite distinct from the value they have as sources of mineral salts and vitamins. There appears to be a health and energy factor obtained from eating fresh, raw foods, foods that still have their stored sunshine in them, that has never been measured. It is a factor, however, that is of fundamental value to children, both as a source of energy and vitality and as an immunizing agent against disease.

Dr. Bircher-Benner did marvellous pioneer work in proving both the value of raw foods to the healthy and their miraculous healing powers when various forms of ill-health were treated by feeding the patients on whole, raw foods. This sunshine factor when retained in our children's food (by giving them an adequate amount raw) has an immense value in improving the quality of their diet. The actual amount to be given must depend on the child's age and on its previous education in eating raw foods. Sudden changes should not be made, but if little or no raw food is being eaten, then progress should be along the lines of increasing it gradually. For tiny babies the first raw foods are freshly made raw fruit or raw vegetable juices.

Unnecessary Cooking.—In order to implement the value of raw foods a great many more can be eaten raw than is commonly the case.

Dr. Bircher-Benner advises that at least half the food eaten should be eaten raw. This means both that the quantity of foods normally eaten raw should be increased and that the range of raw foods should be extended.

Oatmeal can be eaten raw in Muesli, milk should be clean and fresh so that it can safely be taken raw (not pasteurized, or boiled for milk drinks), and many vegetables commonly only used cooked are eminently suitable to be used in salads, such as grated raw carrots or beetroots, broccoli flowerets, Brussels sprouts, or cabbage heart. Ripe raw fruit should be regarded as an integral part of the day's meals and not as either an occasional luxury or a pleasant "extra".

(ii) "WHOLENESS" (See also pp. 20-25)

Some of the worst deficiencies in our civilized diet have come about because of a serious loss of "wholeness" in the things we eat. As soon as man started "refining" and purifying his natural foods these foods began to lose some of their goodness and deteriorate in quality. Purified foods often penalize the people who eat them, for many foods as naturally grown are infinitely better sources of

nourishment than are the same foods after man has finished processing and preparing them, for his own consumption.

It is impossible to refine and process foods either in the factory or in the kitchen without losing some of their natural virtue.

Modern research is showing more and more how the body's processes of assimilating one element is often dependent on the presence of some other element and their inter-relationship. Loss of "wholeness" in foods can affect this process most adversely.

Unnecessary Skinning and Peeling.—Thousands of tons of potatoes are peeled annually and the peelings either thrown away or at best used for pig food. Yet the wastage of valuable mineral salts by peeling is enormous.

There are two reasons for this: firstly, because the outer area of the potato is the richest in mineral salts and vitamins, and when it is peeled before cooking a big proportion of this outer area is removed; and, secondly, because when the peeled potato is put into water and boiled, more of these valuable salts are drawn out into the water. On the other hand, if it is boiled, or, better still, steamed or baked in its skin, the skin acts as a retaining cover, keeping the salts inside and not letting them get lost in the water. (The loss of internal contents that can occur when root vegetables are peeled is well illustrated by beetroot, where it is visible.)

If desired, the skin can be removed after cooking as a very thin covering, so wasting practically none of the valuable part of the potato. If potatoes are thoroughly scrubbed and baked in their skins in the oven, the skins become very crisp and tasty and can be eaten with the rest of the potato.

Again, when apples are peeled some of the best part of the apple is wasted, for valuable salts lie so closely under the skin that they are inevitably removed with it. The skin is also the part in closest contact with the sun.

Not only are some salts thrown away, but in doing this the *balance* of the salts present is upset. Thus in the home itself, as well as in the factory, is the natural "wholeness" of foods ignored by man, to the detriment of his own "wholeness" or health.

If damaged parts are removed and fruits and vegetables are washed or well scrubbed, there is everything to be said against peeling and scraping.

(iii) FRESHNESS

The freshness of foods is an attribute with which people are quite familiar, and to which a fair amount of importance is usually

attached. More importance still, however, could very well be given to this attribute, and the value of green foods "fresh from the garden" cannot be too highly stressed.

It should be remembered that the value of most fruits and vegetables begins to deteriorate as soon as they are picked. Fruits picked when green and allowed to ripen in transit, or afterwards kept in cold storage, have not the full dietetic value that foodstuffs have that are picked when ripe and eaten immediately.

Carrots and other raw vegetables lose some of their "freshness" value if left standing grated. For this reason excessive grating and chopping should be avoided, but any that is to be done should be done at the last minute, immediately before consumption.

(b) Wastage

(i) OVERSOAKING

Vegetables must always be thoroughly well washed, particularly when they are to be eaten raw, but it is a mistake to leave them soaking in a basin of water. Sometimes this is done for hours, but it lowers the quality of the vegetable by soaking out some of the soluble salts by diffusion through the cell walls. Vegetables must often be prepared a little in advance of the actual cooking, but when clean they should be put wet into a saucepan without water, with the lid of the pan on. The final cutting up should always be done just at the end, before putting them on to cook.

(ii) DISCARDING OUTER LEAVES

Much waste occurs also by the practice of throwing away outer leaves and stalks as inedible. These, however, contain valuable mineral salts and vitamins, and should be used for vegetable broth (see page 208).

(c) Overcooking, Wrong Cooking and Recooking

The amount of green food or root vegetables that is enjoyed raw varies with different people, and many portions that are not young or tender enough to be eaten raw are excellent when cooked. Cooking of green foods, however, should be reduced to a minimum, as they are very easily overcooked. Greens should be cooked for the shortest possible time, in the smallest possible amount of water. They are still commonly cooked with far too much water, which is then thrown away, carrying much of the value of the green food with it. A further mistake made is to add soda to the greens. This is known to have a very damaging effect on the vitamin C content, and may also have other deleterious effects.

There is a different danger of overcooking when using pressure cookers. The time needed for cooking the vegetables is certainly very short, but the effect of cooking them under pressure appears to be more damaging to them biologically (even if it does not appear to do much damage chemically) than is the longer period needed when they are conservatively cooked (see page 201). It is also very easy to overcook foods in pressure cookers through errors in timing, for it is necessary to be accurate to a quarter of a minute to avoid this.

Foods must not be wasted, and sometimes it is inevitable that something should be reheated. However, this second cooking is a further damaging factor and should always be reduced to a minimum, both by trying to avoid having "left-overs" and also by only reheating, rather than recooking, when some cooked food has to be used up.

(3) ERRORS IN SELECTION

(a) Failure to Select Undamaged Foods

In spite of all the propaganda in favour of wholewheat bread, and in spite even of Ministry of Food advice on the subject, many homes do not even buy the brown bread sold in shops, and only a very few indeed go to the extra trouble needed to get one hundred per cent. wholewheat bread. Even schools and institutions who receive grants from the Board of Education appear to make little effort to implement the advice of experts on the subject. Nor do many people bother to follow other advice about eating salads, cooking vegetables conservatively and keeping the skin on potatoes and apples. Schools and hospitals, and institutions generally, who should feed children more scientifically and better than their mothers can, often do it worse. They do not insist on brown sugar or black treacle, yet advice on these lines is available. Only custom and wrongly educated palates perpetuate dietetic errors.

Mothers rarely enquire where or how the foods they buy were grown, yet these points should affect their selection, for if the foods they select, though theoretically good, have been faultily grown, they do not get the full benefit for their children of their thought and care. If mothers take the trouble to give their children plenty of vegetables and salads and "brown" bread, but still find their health unsatisfactory, the answer is possibly to be found in this question of how the foods were grown and how the earth was manured. A farther effort on the mother's part to make her own bread from one hundred per cent. wholewheat stoneground flour,

and to buy organically grown vegetables, will almost certainly prove successful.

(b) Lack of Variety

It is advisable not to get into a rut, but to make sure that the selection of foods is as widespread as possible. Variety in the diet is good, as the baby grows up, in order to be sure of including at some stage both all the known essential mineral salts and vitamins and those not yet known, quite apart from the fact that variety makes the meals more interesting. Mothers are sometimes afraid of trying new ideas or different foods and can easily make meals monotonous, and so lower their value by lack of variety.

(c) Lack of Proportion and Balance

It is also desirable to have the foods roughly in the right proportions, for in the normal child's diet of to-day there is too high a proportion of the concentrated foods—meat, bread, cakes, sugar, eggs, etc.—and too small a proportion of the vitalizing and cleansing foods—fruits, salads and vegetables, particularly salads and vegetables. It is these latter foods that have such a vital part to play in the proper utilization and balance of the concentrated foods. It is their function to maintain the alkaline balance of the system and to keep the blood stream clean and healthy. Approximately half the child's food should be vegetables and fruits, and of these foods at least half should be vegetables (including potatoes), vegetable soups and raw vegetable salads. Green vegetables are irreplaceable, so it does not do to rely solely on the more popular fruits.

One other point about balance and proportion needs to be stressed. This is the habit of giving the child bits and pieces between the three meals of the day. It does not matter if the child eats some fresh ripe fruit as "elevenses", but the habit of giving children sweets and sweet cakes or biscuits at odd times between meals is inadvisable. If persisted in it can upset the balance of an otherwise good diet, it is a habit which once started is hard to drop, and it spoils the appetite for more wholesome foods.

(d) Early Errors in Presenting First Solid Foods

When babies have been given "free range" to select their own diet from a variety of foods they have made remarkably satisfactory selections. Many babies, however, have their natural tastes submerged or perverted by what their mothers consider is good for them, and all too easily they may acquire a liking for refined white

sugar and white-flour products and mushy cereals, and a distaste for green vegetables and wholewheat bread and baked crusts. It is easy to deprave a child's natural taste for real live foods, substituting one for impoverished dead ones, so that the quality of the food eaten is lowered, by this perversion. Once this has been done it is often difficult to re-educate the baby into eating and enjoying more valuable natural foods.

Begin Right Foods Early

This is one reason why it is necessary to give a baby sieved vegetables and baked fingers of bread as his first solid foods. These can then be built into his meals as a fundamental part of them from the very beginning. If, instead of them, the *first* solid foods given with a spoon are sweet cereal mushes, then the baby acquires a preferential taste for these foods.

For babies and toddlers all vegetables should be particularly carefully selected and prepared, and given in minute amounts at first, but attractively presented. The quantities can be gradually increased so that as more foods of the concentrated types—bread, cheese, eggs—are taken, so will the larger amounts of vegetables balance them. When the tiny baby is breast-fed his food is so nearly perfectly balanced that he does not need any other food. As he grows older it must be the mother's job to see that the food she provides for her baby is still well balanced, so that no excess of acid wastes will accumulate in his system.

Need for a Change in Food Habits

The damage done to the quality of children's food by faulty selection and wrong preparation should be clear to readers who have read the previous pages. To put such damage right a change in the general food habits of the people is necessary.

The present generation has become accustomed to certain ideas of food, and what is good food, but this is not necessarily a safe criterion for thinking these ideas must be the best. All present food habits need to be reconsidered in the light of present-day knowledge, and any food habits known to be harmful, such as the widespread refining, processing, peeling or overcooking of good wholesome food, should be discarded. The enormous burden of ill-health, and the huge industry of patent medicines that has consequently grown up, demonstrate very clearly that something has gone seriously wrong. We have no right to inflict on our children a type of national diet that is gravely deficient, just because it is,

at present, regarded as the normal diet. If we want our children to be healthy we must overcome these deficiencies by giving them, even if not ourselves, good, natural, unspoiled foods. It is these foods, and not bottles of medicine, that produce sound and healthy growth, with perfect teeth and with abounding vitality.

At present, often the final article presented to children as food is only a travesty of what it was before Man, in his ignorance and conceit, set out to refine and "improve" it.

Right Choice of Foods

Children's food should be chosen from the following groups:

(1) FRUITS

- (a) Ripe raw fruit and fruit juices.
- (b) Ripe cooked fruit.
- (c) Mature nuts.
- (d) Dried fruits (dates, raisins, apricots, peaches, prunes).
- (e) Tomatoes.

(2) VEGETABLES

- (a) Raw salads (a wide variety of vegetables).
- (b) Conservatively cooked vegetables.
- (c) Potatoes baked or steamed in their skins.
- (d) Raw herbs (parsley, etc.).
- (e) Vegetable broth.

(3) DAIRY PRODUCE

- (a) Milk.
- (b) Butter.
- (c) Cheese.
- (d) Eggs.

(4) MEAT AND FISH

(See note *Meat not Essential*, page 35.)

(5) CEREALS

- (a) One hundred per cent. wholewheat bread, preferably home-made from compost grown flour.
- (b) Cakes, biscuits and puddings made using one hundred per cent. wholewheat flour.
- (c) Unpolished brown rice and barley.
- (d) Unprocessed oatmeal (if possible).

(6) PULSE FOODS

- (a) Peas.
- (b) Beans (haricot and butter).

- (c) Lentils.
- (d) Soya flour and soya beans.
- (7) FLAVOURINGS OR SPREADS
 - (a) Honey.
 - (b) Black treacle.
 - (c) Brown sugar.
 - (d) Sea salt (rather than ordinary salt).
 - (e) Vecon, Yeastrel or Marmite.
 - (f) Home-made marmalade or jam.

Normally they should not have:—

- (a) Refined white-flour bread, and white sugar.
- (b) Cakes, sweets, puddings and pastries made with white flour and refined sugar.
- (c) Re-cooked, fried, processed, tinned or highly seasoned foods.

Meat Not Essential

It is a common practice to consider meat broths and meat offals essential for babies, but vegetarian experience proves that this is not true, neither are meat and fish essential for a child's health as he grows older. Children are often coerced into eating these things against their own natural distaste. Meat and meat offals, poultry and rabbits, are often æsthetically repulsive to toddlers, and these foods also contain undesirable animal-waste products which can prove highly over-stimulating, especially to sensitive children. Children can get all the nutriments they need from more natural and attractive sources. If parents wish to give meat to their children, it should be given once a day only, usually at the mid-day meal with plenty of vegetables. It must be absolutely fresh, and should not be re-cooked. Fish, such as herrings and sardines, are rich in vitamin D.

A Warning Against Crankiness

Important as these food questions are, they should never become an end in themselves or any sort of a fetish. The whole object of giving a child an improved type of diet is to increase his capacity for a healthy, active life and to intensify his sheer joy in living.

If the mother lets the diet become an end in itself it can very soon become a barrier to a better life rather than a key to it. While the child is small there should be no serious difficulties, but

as soon as the child is old enough to go out to tea with friends difficulties often arise. The mother cannot advisedly refuse to let her children accept such invitations, nor can she make conditions about what they shall be given to eat.

Most children do not go out to tea so often that an occasional meal of white bread and sweet cakes should matter very much; and during post-war shortages the supply of sweet cakes is, in any case, very limited. The social intercourse achieved by tea parties is more important than any rigid adherence to a dietetic principle, and the child should be allowed to take the different food in his stride with as little comment as possible, though the mother may have to explain that different people do have different kinds of tea.

Sweets, too, are best included once a child is old enough to appreciate that other children have a "sweet ration". They should, however, be given as part of a meal, usually at the end, and preferably not in between meals. Ice cream, too, though it does contain refined white sugar, should not be entirely excluded, for psychological reasons. If the normal diet is properly chosen and properly prepared, occasional ice creams are perfectly allowable. A good-quality diet will have all the essentials that the child needs, and some to spare, to balance such things as incidental sweets and ice cream. The habitual over-consumption of such foods, however, is definitely harmful and should never be allowed.

As the children grow up, more latitude on these matters must inevitably be allowed, and if the right foundations are well and truly laid in early childhood, without emotional conflict or psychological stress, the child is unlikely to go very far wrong for very long. In any case, the early childhood is the time when diet is most important, for "damage inflicted in childhood by bad food cannot be subsequently repaired". (League of Nations: "Problem of Nutrition", A.12, 1936, II B.)

SYNOPSIS OF CURRENT DAMAGE TO CHILDREN'S FOOD

(1) DAMAGE TO QUALITY BEFORE THE FOOD REACHES THE KITCHEN

Food is made deficient by

(a) Cultivation of sub-standard crops.

(b) The way food is refined:

(i) Production of white bread.

Roller milling.

Deficiencies of white bread.

"Skimmed" wheat and skimmed milk.

(Continued)

- (ii) Polished rice.
- (iii) Cleanliness confused with refining.
- (c) The way food is processed:
 - (i) Pasteurized milk.
 - (ii) Packeted breakfast foods.
 - (iii) Irradiated margarine only a second best.
- (d) The way preserved and tinned foods are used excessively.
- (e) The way food is adulterated and chemically treated:
 - (i) Flour adulterated with powdered chalk.
 - (ii) Flour bleached with agene (NCl_3).
 - (iii) Jam and fruits preserved with sulphur dioxide.

(2) DAMAGE TO QUALITY AFTER THE FOOD REACHES THE KITCHEN
Food is made still further deficient by

- (a) Neglect of essential biological factors:
 - (i) Sunshine factor.
Unnecessary cooking.
 - (ii) "Wholeness" factor.
Unnecessary skinning and peeling (potatoes, apples).
 - (iii) Freshness factor.
- (b) Wastage:
 - (i) Oversoaking vegetables.
 - (ii) Discarding outer stalks and leaves.
- (c) Overcooking, wrong cooking and recooking:
 - (i) Need for conservative cooking.
 - (ii) Dangers of pressure cooking.

(3) ERRORS IN SELECTION

- (a) Failure to select undamaged foods even if available.
Schools and Institutions usually fail to supply wholewheat bread and salads daily.
- (b) Lack of adequate variety.
- (c) Errors in balance and proportion.
- (d) Errors in presenting first foods to babies.

Some of these items are much more seriously damaging than others, and it is not always possible entirely to avoid all of them; but no one in charge of children can afford to be ignorant of them or to neglect their implications.

CHAPTER III

THE CHILD AND HIS RAW MATERIALS

FOOD (Cont.)

The First Six Months

THE nine months of antenatal growth and the first nine months of babyhood were dealt with in my previous book, *Having a Baby Easily*, so that the first few months of the baby's life will not be dealt with in detail here.

A short résumé of breast feeding and complementary feeding, and the first introduction of "extras" and weaning is given for readers who have not read the previous book, but no attempt is made at a comprehensive survey.

BREAST FEEDING

It is vitally important that all babies should be breast fed for at least the first few months of their lives, and preferably for eight to nine months if the mother is fit. When properly done, this is far and away the best thing for their health and contentment, both present and future, and it is also the best thing for the mother.

Naturally a woman cannot expect to make a perfect food for her baby unless her own food contains all the essential ingredients necessary for him, and is properly selected and well balanced. Highly spiced and highly seasoned foods are undesirable, and tea and coffee should only be taken very weak.

Rules for a Nursing Mother

- (1) She should cultivate a calm, unworrying outlook, realizing that it is the normal, natural thing for all mothers to feed their babies, and abnormal not to do so.
- (2) She should appreciate the benefits it gives her baby, so realizing it is worth some effort and even sacrifice to carry out this second half of the job of creating a new individual.
- (3) She should make the job as straightforward for herself as possible by seeing that she has:
 - (a) Good whole unspoiled foods—

One hundred per cent. wholewheat bread.
Dairy produce (cheese, milk, eggs, butter).
Vegetables, both cooked and raw.
Fresh ripe raw fruit.
Sweet dried fruits.
Honey and black treacle.

- (b) Plenty of fluid, especially between meals—
Water and *very* weak tea.
Clear vegetable broth or *Vecon*.
Diluted fresh fruit juices in moderation.
A glass of water during each feeding period.

- (c) Adequate rest—
Early to bed, and last feed given in bed.
Daily lying-down rest in afternoon.
All feeds given lying down on bed if at all tired.

- (d) Plenty of fresh air and exercise—
Window wide open at night.
Daily walk of open-air work, such as gardening.
Daily deep breathing and other exercises first thing every morning by a wide-open window.

- (e) Relaxation—
Arrange her day so that breast feeding takes priority over all the household tasks, which may have to be curtailed to a minimum.
Enlist her husband's help with household chores, to leave some time for relaxation if necessary.

- (4) It is usually considered wisest to use both breasts at each feed, about ten minutes at one and five at the other, beginning each feed with the one that was used last at the previous feed.
- (5) She should feed the baby regularly, with no night feeds.
- (6) She should hold the baby up against her shoulder and "break the wind" in the middle of the feed and again at the end.
- (7) See that she has time to give the baby "mothering time" and play as well as just feeding him. The baby needs love and affection just as much as he needs food, fresh air and sunshine; but petting and handling should not be overdone, especially when the baby is tiny. There is sometimes a tendency to "over-cuddle" the baby, and then to "under-cuddle" the toddler, who may easily need demonstrations of love more than he did in babyhood. This is particularly true where there is a younger baby.

Benefits of Breast-Feeding

- (1) Breast milk is the ideal food for babies, specially adapted for their needs, at the right temperature, and uncontaminated by any outside sources. It also saves the mother the time and trouble of preparing artificial milk feeds, an important matter if single-handed.
- (2) It is an advantage because
 - (a) It does *not* contain the "food peril" associated with artificial milk mixtures, caused by their being infected or containing unsuitable or indigestible constituents.
 - (b) Good breast milk *does* confer infinitely greater immunity to disease, and powers of resistance to adverse conditions generally, than any artificial milk mixture can.
- (3) Evidence of benefits of breast feeding given, among others, by Infant Welfare Centre of Chicago: over 20,000 infants attending the Centre were followed up for the first nine months of their lives, with the following results:

	No. of Babies	Total Deaths	Percentage of Deaths
Wholly breast fed	9749	15	.15
Partially breast fed	8605	59	.7
Artificially fed ..	1707	144	8.4

(League of Nations "Problem of Nutrition", A 12, 1936, II B.)
 From this it is seen, that the mortality rate among artificially fed babies is fifty-six times greater than among those wholly breast fed. This is only the death rate, but it is logical to assume that the general level of health and immunity to disease would correspond.

- (4) Breast feeding has also important psychological advantages. It is the baby's first effort at co-operation with another human being, and the baby derives a sense of love and security from being nursed by his mother quite apart from his actual physical nourishment. The bond between mother and child is strengthened, and if the mother is wise it is a useful foundation stone in the training of the child to be a happy, co-operative type of person.

The mother who successfully establishes breast feeding, and carries it out for six to nine months, will have given her baby a flying start in life, as regards both physical and psychological health.

However, between six months and two years every baby has a tremendous amount to learn, and a great many changes in his feeding have to take place, so that even when breast feeding is discontinued he will still need much help from his mother if things are to go really smoothly for him.

COMPLEMENTARY FEEDING

If her baby is not gaining enough weight and the mother thinks he is not getting enough milk, the baby should be "test-weighed" for all five feeds in the twenty-four hours. If this illustrates that insufficient breast milk is being taken, then the mother should go over all the points previously mentioned and see if any need improving, but she will not necessarily need to wean the baby, especially if he is under six months old. The introduction of one hundred per cent. wholewheat bread and extra water and extra rest will often be all that is required. If not, the mother should give a small complementary feed of milk mixture (probably 1-2 oz.) for a time, *after* feeding the baby from both breasts, at the 10 a.m., 2 p.m. and 6 p.m. feeds.

In the early months only very rarely do digestive upsets or failure to gain weight indicate that weaning is desirable. Adjustments in the technique and quantities of the breast feeds can overcome nearly all difficulties, and it is only to be expected that in the first two or three months some difficulties will be experienced in getting the entirely new job of breast feeding going properly.

The need for complementary feeding, and the amount to give, can be satisfactorily decided only after test-weighing. Test-weighing should not, however, become a regular or daily practice, for if it does, the mother becomes over-anxious and worried, and so spoils her milk supply. It is a mistake to give any more complementary food than is absolutely necessary, as this will reduce the baby's appetite for the next breast feed, so that the breasts will not get adequate stimulation by vigorous and hungry sucking.

If a baby over six months, who has been gaining regularly, begins to fail to do so, it may be because the quality of the mother's milk is deteriorating, owing to the baby's increasing demands. The addition of "extras" (see page 56), small complementary feeds and the previously suggested adjustments of the mother's diet may be all that is necessary, but if the mother herself is feeling overtired as well, it may be desirable to begin very gradual weaning, giving one artificial feed each day, at 10 a.m., and after two or three

weeks giving two. There is no advantage to mother or baby to prolong breast feeding up to nine months if the baby does not gain weight satisfactorily, after making the adjustments suggested above. If the baby cries at the breast, or bites at the nipple, or keeps stopping sucking, at this age, it may indicate lack of adequate breast milk.

Addition of "Extras"

Even if the baby is being successfully breast fed, the "extras" suggested on pp. 55, 56 should be introduced in small amounts from five to six months. If the baby is being bottle fed it is important to introduce them several months earlier.

In any case, before taking the baby off the breast he should have been happily introduced to the taking of small amounts of fruit and vegetable juices and purées from a spoon, and, if possible, to drinking diluted orange juice from a tiny cup.

If the breast has been his sole source of nourishment up to about seven months, and is suddenly dropped or changed to a bottle, it is much more of an upheaval to the baby to change both the method of getting his food and the type of food taken, all at once, instead of gradually.

WEANING

Weaning is taken to mean either:

- (1) Substituting bottle feeding for breast feeding.
- (2) Substituting cup and spoon feeding for either breast or bottle.

(1) Substituting Bottle Feeding for Breast Feeding

If the baby is to be taken from the breast before he is nine months old it is probably wisest to put him on to a bottle, even if only for two to three months.

Attempts to feed a six- or seven-months-old baby with 6-7 oz. of fluid, using a cup and spoon, can be extremely exhausting to both mother and baby, and usually both are tired out and cross before the baby has had adequate nourishment. Much of it often soils the baby's clothes as well.

If the baby objects to the teat of the bottle and refuses it, the mother should see that the teat is well softened in water and that the holes are large enough to allow the milk to flow easily. A fiveholed leach-bite teat is a good type to start with. The bottle should be completely wrapped up in a clean soft cloth, with only the teat protruding, and the mother should nurse the baby com-

fortably in her arms just as if she were feeding him. It may help if a little milk is on the outside of the teat, or if there is a tiny taste of honey on it.

In extreme cases of refusing to take the bottle the mother may have to get some other person to give the first few artificial feeds, but if the baby has been well satisfied at the breast in earlier months he should be ready to progress to other foods.

ROUTINE OF WEANING

Unless there is some special reason indicating the need for a different course, a good scheme for weaning is to give one bottle feed a day, in place of the 10 a.m. feed, for a week, and then the following week give two artificial feeds at 10 a.m. and 6 p.m., and the third week give three, at 10 a.m., 2 p.m. and 6 p.m., the "extras" being kept up as usual.

If the baby is about eight months and taking his extras well, and is up to average weight, he may be ready to omit the 10 p.m. feed entirely, instead of having an artificial feed. If he will do this, and sleep through the night, it is a good scheme at this age, and the baby may take slightly more food at the four remaining feeds. As well as sleeping through the night it is important to watch the weight, for if the baby fails to gain adequate weight after omitting the feed for a week or two it is necessary either to increase the remaining feeds still more or to reintroduce the 10 p.m. feed.

The 6 a.m. breast feed is often continued for several weeks after the other breast feeds have been given up. This is quite a good plan if the mother has plenty of milk and is not overtired.

Breast feeding is usually completed by about eleven months. Sometimes the 6 a.m. breast feed is kept up until the baby is ready to have diluted orange juice instead and go on to three meals a day.

REDUCING SUPPLY OF BREAST MILK

If, in spite of gradual weaning, the mother still makes so much milk that the breasts get painfully overful, or if for some unavoidable reason weaning has to be carried out suddenly, the following procedure is advisable:

- (1) Adequate support should be given to the breasts with a good uplift brassiere, sometimes with the extra support of a wide crepe bandage.
- (2) The amount of fluid taken daily should be considerably curtailed.
- (3) If the breasts are painfully overful, a *little* milk may be drawn off each with a breast pump. Only the minimum

amount to give relief should be withdrawn, otherwise the breasts will merely be stimulated to produce more. Usually it is only necessary to do this once or twice.

- (4) Epsom salts may be taken if the above measures are not adequate, but usually they are not necessary.

(2) Substituting Cup and Spoon Feeding for Breast or Bottle

There is no hard-and-fast rule about when the bottle should be given up, but normally it should be dispensed with some time between nine and twelve months. It depends on the growth and general development of the baby. If he is underweight it is usually wisest to prolong the use of the bottle a little rather than upset the baby. At the same time it should be remembered that undue reliance on the bottle may be a regression on the baby's part, and may interfere with his normal consumption of more adult foods.

If other foods have been introduced gradually from an early age, and if the baby's physiological needs are being properly catered for in his meals, this difficulty does not usually arise, but in extreme cases if the baby is over 15 months old it may be necessary for the mother "accidentally" to drop the bottle on the kitchen floor, so that it breaks, while the baby is there, so that he sees he can no longer use it.

After a year the baby should in any case not be taking more than one pint of milk a day, with a good variety of other foods, so that if after dropping the bottle he refuses all milk from a cup this can be ignored.

Some milk can be given flavoured with marmite as soup, or as junket or milk jelly.

A tiny coffee cup is usually a convenient first mug for a baby, and if he has learnt to drink orange juice in this way he should soon adapt himself to taking milk this way too.

If the baby is difficult about weaning, either about giving up the breast and taking the bottle, or, later, about giving up the bottle and using a cup, the mother should herself keep calm and unemotional and try to understand and sympathize with the baby's difficulties while using all her ingenuity to help his progress to more advanced forms of getting his food.

Types of Milk for Six-Months-Old Baby

The following milks are available to the mother from which to choose her baby's milk mixture:

- (1) Fresh T.T. Accredited milk.
- (2) Pasteurized milk.

- (3) National dried milk (obtainable from Food Office or Baby Clinics at a very cheap rate).
- (4) Goat's milk.
- (5) Unsweetened evaporated milk.
- (6) Patent (and expensive) prepared baby foods, and sweetened tinned milk.

FRESH T.T. ACCREDITED MILK is nowadays very difficult to obtain, and is also expensive. It is, however, a good clean unprocessed milk, and it should be possible to use it fresh and raw, without boiling.

Normal proportions for it would be (for five feeds):

20 oz. fresh T.T. Accredited milk.

10 oz. cooled boiled water.

$\frac{1}{2}$ -2 tablespoonfuls thin cream (off top of another bottle of milk).

2-3 tablespoonfuls milk sugar *or* 1-2 level tablespoonfuls honey.

PASTEURIZED MILK is less desirable. It would be made up in the same proportions. It lacks some of the positive benefits of fresh raw clean milk, so where it has to be used either for babies or toddlers especial care to ensure that fresh fruits and vegetables (or their juices or purées) are included daily.

NATIONAL DRIED MILK is a good full-cream dried milk, very cheap and usually very acceptable to babies and is probably the best milk to select if fresh Accredited T.T. milk is not available. It is advisable to make it up slightly weaker than suggested on the tin, especially at first. Fruit and vegetable juices and purées are more important when using a dried milk than when using T.T. raw milk.

GOAT'S MILK, if clean and fresh, is a suitable food for babies, but is slightly richer than cow's milk. The same proportions as given for T.T. milk can be used, except that no cream should be added, and in place of it an extra ounce of water.

UNSWEETENED EVAPORATED MILK is a very useful baby food, and is usually very well tolerated even by babies with delicate digestions. It should be diluted according to the instructions on the tin, to bring it to normal milk, and then prepared in the following proportions:

24 oz. evaporated milk and water to strength of fresh milk.

6 oz. water.

2-3 tablespoonfuls sugar.

Later, the baby may take it a little stronger still. No cream is

here included, so that a "taste" of butter should be added to the baby's sieved vegetables with discretion.

PATENT BABY FOODS AND SWEETENED TINNED MILK are seldom necessary, and some of them may contain much too much sugar and some of them contain starch, and many of them tend to be unduly processed and complicated, and much more expensive than the National Dried Milk.

No Emotional Upset

In spite of the magnitude of the changes, both in the type of food eaten and the method of taking it, there should be no sudden breaks. Anything in the nature of an upheaval or emotional upset should be avoided. It is important to realize that the breast-fed baby is taking a very active and essential part in obtaining his food, and that he gains a lot of satisfaction from the physical sensation of sucking and being cuddled by his mother, quite apart from the satisfaction of his actual physical hunger. To a lesser degree this also applies to the bottle-fed baby, and because of this the bottle-fed baby, though deprived of the breast itself, should always be cuddled while having his bottle, and never given it in his cradle propped up against a pillow. He, too, needs the comfort and security of his mother's arms.

Between six months and two years the baby has to change over from taking his food in one simple liquid form, by sucking, five times a day, to taking a variety of solid foods, needing chewing, three times a day. These changes can, and should, all be made gradual and progressive. It is important to "start right" and to maintain, throughout the changes, the principle inherent in breast feeding, that the active co-operation of the baby to provide himself with his own food is part of the job.

This is one reason against the early adoption of cup and spoon feeding in place of bottle feeding. To suck from a bottle is usually easier than to suck from the breast, but it does demand more active effort from the baby than being spoon-fed demands. It is always a depressing sight to see a toddler lolling back in his chair, or on someone's lap, having his meals anxiously spooned into him by a mother or, more probably, a grandmother. The baby's instinct to feed himself should be maintained and fostered in spite of changes. The first "extras" in addition to breast feeds have to be given, by a spoon, but these form only a small part of the child's total meal. If "tastes" of sieved fruits and vegetables are given from about three months, long before breast feeding is given up,

then their introduction is slow and gradual, and the use of the spoon goes side by side along with the comfortable habit of sucking, and there is no sudden change.

Importance of Chewing

The first efforts at self-feeding other than sucking should be chewing. This can be begun with the prepared Bickie-pegs from about four months, but certainly at six months, when a piece of baked bread or rusk should be given as a regular routine to the baby to chew at for a few minutes before the 10 a.m., 2 p.m. and 6 p.m. feeds. At first the mother will have to hold it, but the baby does the chewing. Later the baby will hold it for himself though he may actually eat very little.

This practice is extremely valuable because

- (1) It demands the active effort on the part of the baby at a time when he is too young to use a spoon to feed himself, and so has to be fed with fruit and vegetable purées with a spoon by someone else.
- (2) There is at this age a strong desire on the baby's part to bite and chew things. The rusks associate this desire with the taking of food and a pleasant sensation of taste, and so help to establish the invaluable habit of mastication.
- (3) If this desire to chew is not fostered and hard food is not given from an early age, the instinct to chew food may easily be blunted, and the two-year-old may refuse to eat anything but mushes and may tend to leave all crusts and other hard or tough foods that cannot be swallowed without chewing.
- (4) It gives invaluable exercise to the jaws and helps to form good, strong, well-spaced teeth.
- (5) It ensures that the first starch food is eaten thoroughly insalivated, and not merely swallowed down into the stomach, as mushy foods are.

Suggested Milk Mixtures for from Six to Twelve Months

During the first six months of a baby's life, if he is unfortunate enough not to be breast fed, the composition of his milk mixture can remain pretty constant, his growing needs being met by gradual increases in quantity.

At six months the baby's main food is still modified milk, the amount of actual whole milk in the mixture being about $1\frac{1}{2}$ pints every twenty-four hours.

ALTERATIONS IN QUALITY AND QUANTITY

During the next six months, apart from the gradual extension of "extras" that babies take, the milk mixture itself undergoes certain variations.

- (1) The total quantity of mixture taken increases.
- (2) The proportion of milk to water increases steadily.
- (3) From about nine months the milk mixture tends to decrease in quantity while becoming a stronger one as regards the proportion of milk to water it contains.

At six months the proportion of milk to water is about 2:1.

At ten months the proportion of milk to water is about 3:½.

At twelve months the proportion of milk to water is about 3:0.

That is, at one year the baby may be taking whole undiluted milk which should be unsweetened.

At both six months and one year the total amount of milk taken will probably be 1½-1¾ pints, but at six months it is diluted, and at one year it is undiluted.

There is no hard-and-fast rule about this, and some authorities advise giving larger feeds of somewhat diluted milk up to fifteen months or longer. In every case the individual needs and reactions must be considered, for there is certainly room for a considerable amount of variety in babies' milk mixtures in the period from six months to one year. All changes should, however, be gradual, and sudden changes and extreme experiments avoided.

REDUCTION IN NUMBER OF FEEDS

Between six months and one year the number of feeds given in the twenty-four hours goes down from five to three. As a result the total quantity of milk mixture or milk taken at each feed remains fairly constant at about 8 oz., though some babies at about eight or nine months may take as much as 10 oz. at each of their four feeds. During this period the quantity of other fluids (water, vegetable broth and fruit juices) should increase so that the total amount of fluid taken every twenty-four hours during this period also remains fairly constant at about two pints. It is not, however, advisable to try to force the baby to take this amount if he is not thirsty or to refuse extra water if he is. In any case there is a natural variation according to the seasons, whether it is summer or winter.

The following table gives the details of milk mixtures and totals of the fluids taken according to the baby's age and weight, from six months to one year:

SUGGESTED COMPOSITION AND APPROXIMATE QUANTITIES OF MILK MIXTURES AND
QUANTITY OF OTHER FLUIDS FROM SIX TO TWELVE MONTHS

Age (months)	Approx. Weight (pounds)	Milk Mixture				No Feeds	Quantity p feed (oz.)	Total Mixture (oz. app.)	Other Fluids (oz. app.)	Total Fluids (oz. app.)
		Milk (oz.)	Top Milk (oz.)	Sugar (teasp.)	Water (oz.)					
6	15	23	$\frac{1}{2}$	8	14	5	$7\frac{1}{2}$	$37\frac{1}{2}$	3-4	40
7	16	$27\frac{1}{2}$	$\frac{1}{2}$	8	12	5	$7\frac{1}{2}$	40	3-4	44
8	17	30	1	8	9	5	8	40	4-6	44
9	18	30	1	8	9	4	8-10	30-40	6-10	44
10	19	30	—	6	5	4	8-9	30-35	6-10	40
11	20	$27\frac{1}{2}$	—	4	$2\frac{1}{2}$	4 or 3	7-8	25-30	8-12	40
12	21	20-25	—	—	—	3	7-8	20-25	10-14	42

Feeding at Six Months

At six months a baby should be having:

- (1) Five feeds daily, at four-hourly intervals, of breast milk (or artificial feeds of modified milk).
- (2) Drinks of water or diluted fruit or vegetable juices, if awake, half to one hour before the 10 a.m., 2 p.m. and 6 p.m. feeds (or at other times if awake and thirsty).
- (3) Baked crust to chew at for a few minutes before having the purées at the beginning of the 10 a.m., 2 p.m. and 6 p.m. feeds.
- (4) Sieved fruits and vegetables at the beginning of the 10 a.m., 2 p.m. and 6 p.m. feeds.

There used to be a tendency to consider "weaning" as a sort of nightmare period with baby and mother fighting, a continual battle, in which the baby had to be subjugated. Nothing of the kind should occur. The non-bottle or non-breast part of each meal begins in minute amounts, perhaps just a quarter of a teaspoon of vegetable purée, and is gradually increased. Rusks are added, and later a wide variety of vegetables, and "tastes" of egg yolk or milk cheese. At eight months a substantial amount of these other-than-milk foods are being eaten, and the baby can sit up in his own chair to have them. He cannot really feed himself at this stage, but he should be preparing to do so. His first efforts are bound to be extremely messy, and for this reason mothers, and even more so nurses, are rather inclined to deprive him of the opportunity to do so. This is a great mistake, and proper arrangements for the baby to feed himself should be introduced from the very beginning. (See page 73 "Refusal of Food"). Though an eight-months-old baby cannot feed himself, he can hold a spoon and stir it about in the purée, and may sometimes put the spoon, probably upside down, into his mouth, while the mother does the actual feeding with a second spoon.

Preparations for Using His Own Spoon

To prepare for this messiness, and the still greater messiness when the baby is a little older and really beginning to feed himself, is an important part of the job. The baby needs:

- (1) A large feeder (with sleeves and closely buttoned cuffs, if his normal clothes have long sleeves) fastening down the back. These can be made easily out of soft old Turkish towels and regularly rinsed out.

- (2) A washable mat under the chair.
- (3) A chair with a fitted, rigid, washable tray, and straps to keep the baby from tumbling or climbing out.
- (4) If possible, a baby plate—*i.e.*, a deep plate, with straight or slightly inverted sides.
- (5) A small spoon, preferably a baby spoon, with a short handle, sometimes made in the form of a loop.
- (6) A small wet sponge and towel.

These preparations are well worth the bit of trouble they entail, and as the baby gets older he will gradually make more serious attempts to put some of his food into his mouth with his own spoon. The mother may have to complete the job, but should never discourage the baby's efforts, though he must not be allowed to splash his food about through the sheer joy of making a mess. Nothing can prevent the child, learning to feed himself, from getting both face and hands in a mess: but, also, nothing should prevent the mother from wiping both hands and face clean before letting the child get out of his chair. The most adorable baby in the world loses some charm if allowed to go about with sticky fingers and the remains of a meal on face or frock, and it is inexcusable on the mother's part to let it occur.

If children are to grow up confident and sure of themselves, the instinct to feed themselves should never be usurped by their mothers. The mother's part is to give just the minimum of help at certain essential stages. A healthy, active, properly brought-up child of eighteen months infinitely prefers to feed himself rather than to be treated like a mental defective and be spoon-fed by his mother, even if occasionally he needs a little help to finish.

Change to Three Meals a Day

The transition from five feeds a day to three is not really a difficult one, but owing to individual differences in babies one cannot lay down hard and fast rules. Between eight and eleven months the baby will be ready to omit one feed. There are two different schemes for making the change, both of which are satisfactory, so that the mother can choose whichever she feels will suit her own baby (and herself) best:

- (1) First feed to be omitted—the 10 p.m. feed, *or*
- (2) First feed to be omitted—the 6 a.m. feed.

(1) FIRST FEED TO BE OMITTED—THE 10 P.M. FEED

If the baby is gaining steadily and taking the "extras" well,

and has to be wakened for the 10 p.m. feed, it is worth while seeing if he will sleep through the night. If he does this regularly, then he will very likely take a little more food at the other four feeds, and the 10 p.m. feed can be permanently omitted provided the baby's weight gains remain satisfactory.

Later, at about eleven or twelve months, the baby will tend to sleep on after 6 a.m. This should be encouraged. The baby can be given a drink of diluted orange juice at this time (preferably from a cup) instead of a bottle of milk, when he wakes, and be washed and dressed at about 7.30 a.m., and at about 8 a.m. he can have his "breakfast"—*i.e.*, rusk, purée and milk—the meal that was previously its 10 a.m. feed. When he does this he will be ready for a sleep in his pram out of doors by 10-10.30 a.m., and will probably wake for his dinner by about 12.30 p.m. This will be the 2 p.m. meal advanced to 12.30 p.m. It is not necessarily always wisest to take the baby straight from his sleep to his dinner. Sometimes a baby is tearful when he wakes. He may be ready for his dinner and may be consoled by getting it, but on the other hand he may come to his dinner with a much better appetite if he has had time to play a little first. A good many dinners are refused because they are offered while the baby is still too sleepy to want them. This is particularly true if the baby is waked up because it is dinner-time.

Similarly, what was previously the 6 p.m. feed should be advanced to about 4.30 p.m., a drink of diluted fruit juice being given at 4 p.m. after an afternoon spent in the pram, preferably being taken for a walk. The transition to three meals a day is easily completed in this way.

(2) FIRST FEED TO BE OMITTED—THE 6 A.M. FEED

Some eight-months-old babies, while waking regularly for the 10 p.m. feed, tend to sleep on past the 6 a.m. feed. In such cases the first change can be made by letting the baby sleep on as long as he will, and then giving a drink of diluted orange juice when he wakes. The day's meals are then advanced $1\frac{1}{2}$ -2 hours (10 a.m. to 8 a.m.; 2 p.m. to 12.30 p.m.; 6 p.m. to 4.30 p.m.) as suggested above, the only difference being that in that case the 10 p.m. feed is still given, usually until eleven to twelve months. This means the baby does not get the twelve-hour rest at night when no food is taken (6 p.m. to 6 a.m.), but it often suits the family best to give the baby a meal at about 4.30 p.m. However, if he is still breast fed it is usually easiest for the mother to continue with the

6 a.m. breast feed rather than to give a breast feed at 10 p.m. If, on the other hand, the baby is eleven to twelve months old, but under-weight, and not quite ready to go on to three meals a day only, then meals as here suggested, with an added feed at 10 p.m. may be the best and most convenient scheme.

The Quantity of Food

While it is helpful to know how much milk or other foods is a good average at different ages, hard-and-fast rules are often misleading owing to the individual idiosyncrasies of each separate baby. The quantities given are a guide, and a very useful guide, to suitable amounts, but every mother must also use her own judgment, giving a little more if her baby really seems to need it, and not worrying if her baby takes a little less than the book says, provided his development is normal.

Without spoiling or fussing, it is well to remember that each baby is a little individual right from the start and cannot be fed and reared just by rule of thumb. Slight variations from the printed instructions, even if these are good, may be necessary in some cases, and may make all the difference between happiness and discontent on the baby's part.

The Variety of Food

Sometimes mothers worry because they feel there is too little variety in the meals suggested, but the foods here suggested are themselves complete foods, containing in themselves more essential variety than can be got from many of the more usual processed and refined foods. If they are properly selected and correctly cooked, the baby will get all the various nutriments he needs, even though the meals appear a bit monotonous to an adult. Necessary variety is brought about by the use of different fruits and vegetables both cooked and raw on different days and in different seasons, and by the use of eggs, cheese, nuts and pulse foods as sources of protein. Children are creatures of habit and usually enjoy repetition, even in their meals, but the repetitions must themselves be good and physiologically adequate.

Notes on Tables of "Extras" to be Added to Milk Mixtures

- (1) All water used must be boiled and then cooled up to about 15 months.
- (2) The baby should not be wakened to take the juices. They are permissible and educational, but not absolutely

essential, especially if the baby is being breast fed, and if the baby is asleep he should not be wakened but should just miss them out.

- (3) If bottled orange juice is used, just give one or two drops at first since it must be diluted four to five times as much as fresh orange juice. Even so, it does not suit all babies, and in such cases should be omitted, and diluted raw carrot juice or apple juice or blackcurrent juice tried instead.
- (4) No hard-and-fast rule can be given as to exact quantities, for babies vary in their powers to assimilate fruits and vegetables and their juices. But once the general principles are understood it should be easy to adapt them to each individual baby's need.
- (5) If the stools become too loose for several days the purées should be omitted for a day or two, and then restarted in smaller quantities.
- (6) Some mothers prefer to drop the 6 a.m. feed rather than the 10 p.m. feed at eight or nine months. In this case see page 52.
- (7) The first diluted juices may be given either with a small spoon or from a bottle. The first amounts are so small that a spoon may seem most suitable, and later, when larger quantities are taken, a bottle or cup may be preferable.

From about seven months (or earlier) it is a good plan to see if the baby will take the juices from a little coffee cup. If at first he refuses do not worry, but try again at short intervals. It is a great help to him to have learnt to do this before he has to learn to take his milk mixture from a cup.

- (8) The first starch given should be crisp and dry—*e.g.*, baked fingers of bread and then toast. It should not be soft mushy foods like bread and milk or groats. Bread made from *finely ground* wholewheat flour should be used. If too coarse it may make the stools too loose.
- (9) If the baby is breast fed and the mother is having a wise diet, rich in natural, unspoiled foods, there is no real necessity to start the purées before five or six months. Whenever they are first introduced, all new foods should be given in very tiny amounts and then gradually increased.

TABLE OF "EXTRAS" FOR TWO AND THREE MONTHS

TIME	TWO MONTHS	THREE MONTHS
6 a.m. ...	Breast feed	Breast feed
9-9.30 a.m. ..	$\frac{1}{4}$ - $\frac{1}{2}$ teasp. orange juice in 3 teasp. water (optional)	1-2 teasp. orange juice in 4 teasp. water (optional)
10 a.m. ...	Breast feed	Breast feed
1-1.30 p.m. ...		$\frac{1}{2}$ teasp. fresh raw carrot juice in 1 tablesp. water $\frac{1}{2}$ teasp. sieved carrots (optional)
2 p.m. ...	Breast feed	Breast feed
4.30 p.m. ..		1-2 teasp. orange juice in 2-4 teasp. water
5 p.m. ...	$\frac{1}{2}$ -1 teasp. orange juice in 3 teasp. water (optional)	
*6 p.m. ...	Breast feed	Breast feed
10 p.m. ...	Breast feed	Breast feed

TABLE OF "EXTRAS" FOR FOUR AND FIVE MONTHS

TIME	FOUR MONTHS	FIVE MONTHS
6 a.m. ...	Breast feed	Breast feed
9-9.30 a.m. ...	2-3 teasp. orange juice in 4 teasp. water	3 teasp. orange juice in 4-6 teasp. water
9.50 a.m. ..		Bickie Peg
10 a.m. ..	$\frac{1}{2}$ -1 teasp. sieved prunes Breast feed	1-2 teasp. sieved apples or prunes
1-1.30 p.m. ... (if awake)	2 teasp. carrot juice in 2 teasp. water or 2-4 oz. clear vegetable broth	Breast feed 2-3 teasp. carrot juice in 3 teasp. water or clear vegetable broth
1.50 p.m. ..		Bickie Peg or Chu-Chu
2 p.m. ...	1-2 teasp. sieved carrots Breast feed	2-3 teasp. sieved carrots $\frac{1}{2}$ teasp. sieved spinach
4.30 p.m. ..	2-3 teasp. orange juice in 4-6 teasp. water	Breast feed 3-4 teasp. fruit juice in 4-8 teasp. water
6 p.m. ...	Breast feed	1-2 teasp. sieved grapes, apples or prunes, or vegetables
		Breast feed
10 p.m. ...	Breast feed	Breast feed

The baby can be held out on his pot for half a minute after each feed, and before feeds if picked up dry, or nearly so, but no fuss or bother should be attached to the habit, even if there is no reaction.

ROUTINE AND ADDITIONS TO BREAST FEEDS OR MILK MIXTURES AT SIX MONTHS

At this age the baby is a very lively little person needing exercise as well as food, but even so he needs a regular routine with a great deal of sleep.

TIME	
6 a.m.	... Breast feed. Sleep out of doors if possible.
9-9.30 a.m.	4 teasp. orange juice in 4 teasp. water, followed by kicking time and wash and dress.
9.55 a.m.	Chu-chu or baked bread.
10 a.m.	2 teasp. sieved fruit or vegetables, followed by Breast feed.
10.30 a.m.	. Sleep out in pram.
1.30 p.m. (if awake)	3 teasp. carrot juice in 4 teasp. water or 2 oz. vegetable broth, followed by kicking time.
1.55 p.m.	.. Crust to bite at.
2 p.m.	... 4 teasp. sieved vegetables Breast feed.
2.30 p.m.	. Sleep out in pram.
4-4.30 p.m.	. 4 teasp. fruit juice (prune, raisin, etc.) in 4-8 teasp water followed by play and mothering time.
5.15 p.m.	. Bath.
6 p.m.	. 2 teasp. sieved prunes, if liked, but often omitted. Breast feed.
6.30 p.m.	.. Sleep.
10 p.m.	... Breast feed.
10.30 p.m.	... Sleep.

ROUTINE AND ADDITIONS TO BREAST FEEDS OR MILK MIXTURES AT SEVEN MONTHS

TIME	
6 a.m.	... Breast feed. Sleep out of doors if possible.
9-9.30 a.m.	... 4-5 teasp. orange juice in 4 teasp. water, followed by kicking time and wash and dress.
9.55 a.m.	.. Baked bread.
10 a.m.	... 2-3 teasp. sieved fruit or vegetable, followed by Breast feed or Artificial Milk feed.
10.30 a.m.	. Sleep out in pram.
1.30 p.m. (if awake)	... 4 teasp. carrot juice in 4 teasp. water or 2-4 oz. vegetable broth, followed by Kicking time.
1.55 p.m.	... Crust to bite at.
2 p.m.	... 4 teasp. sieved vegetables. Taste of butter. Breast feed.
2.30 p.m.	... Out in pram. Probably sleeps.
4-4.30 p.m.	4-6 teasp. fruit juice in 6-8 teasp. water. Baked crust to bite at, followed by exercise and mothering time.
5.15 p.m.	.. Bath.
6 p.m.	... 2-3 teasp. sieved fruit or vegetables, with 1 teasp. Bemax or Froment. Breast feed.
6.30 p.m.	... Sleep.
10 p.m.	.. Breast feed.
10.30 p.m.	... Sleep.

ROUTINE AND ADDITIONS TO BREAST FEEDS OR MILK MIXTURES AT EIGHT MONTHS

TIME		
6 a.m.	...	Breast feed.
6.30 a.m.	...	Sleep, out of doors if possible.
9-9.30 a.m.	.	4-6 teasp. orange juice in equal quantity water, followed by kicking time and exercise with mother's help.
9.30 a.m.	...	Wash and dress.
9.55 a.m.	..	(1) Baked crust.
10 a.m.	...	(2) 3-4 teasp. sieved fruit (or vegetables) with 1 saltsp. nut cream (or top milk) in 1 teasp. water one day a week. ½ teasp. Bemax daily.
		(3) Breast feed or Artificial Milk feed.
10.30 a.m.		Sleep out in pram.
1-1.30 p.m.		4 teasp. raw carrot or tomato juice in 4 teasp. water or drink of vegetable broth.
	.	Play and exercise.
2 p.m.	...	(1) Baked crust to chew.
		(2) 1-2 tablesp. sieved vegetables and 1-2 teasp. mashed potatoes, with ½ teasp. butter. Also 1 saltsp. egg yolk one or two days a week, or 1 eggsp. curd or milk cheese one or two days a week. (Increase gradually to small amounts of one or the other five days a week.)
		(3) Breast feed , or junket, or milk mixture to drink.
2.30 p.m.	..	Out in pram. Probably sleeps part time.
4-4.30 p.m.	.	Drink of orange juice in water. Baked crust to bite at. Play and mothering time.
5.15 p.m.	...	Bath.
6 p.m.	.	3-4 teasp. sieved fruit, or vegetables, with 1-2 teasp. Farex or baked bread crumbs. Breast feed or Artificial Milk feed.
6.30 p.m.	...	Sleep.
10 p.m.	...	Breast feed (sometimes omitted at this age if sleeping well through the night and gaining weight satisfactorily).

ROUTINE AND ADDITIONS TO BREAST FEEDS OR MILK MIXTURES AT NINE MONTHS

TIME		
6 a.m.	...	Breast feed.
6.30 a.m.	...	Sleep.
9-9.30 a.m.	...	1-2 tablesp. orange juice in equal quantity water, followed by kicking time and play in playpen.
9.30 a.m.	...	Wash and dress.
9.55 a.m.	...	(1) Baked crust.
10 a.m.	...	(2) 4-5 teasp. sieved fruit (or vegetables). 1-2 teasp. Bemax. 1 tablesp. raisin juice. 1 saltsp. nut cream (or top milk) in $\frac{1}{2}$ teasp. water.
		(3) Artificial Milk feed.
10.30 a.m.	...	Sleep out of doors in pram.
1-1.30 p.m.	...	5-6 teasp. raw carrots or tomato juice in equal quantity water or drink of clear vegetable broth. Play and exercise with mother.
2 p.m.	...	(1) Baked crust to chew.
		(2) 1-2 tablesp. sieved vegetables, $\frac{1}{2}$ -1 tablesp. mashed potatoes, $\frac{1}{8}$ - $\frac{1}{4}$ teasp. butter, $\frac{1}{2}$ teasp. egg yolk three times a week. 1 teasp. milk or curd cheese three times a week. 1 eggsp. peas, beans, lentils or soya cream one day a week.
		(3) Artificial Milk feed , or junket or milk jelly or baked custard.
2.30 p.m.	...	Out in pram. Possibly sleeps part time.
4 p.m.	...	Drink of orange juice in water. Baked crust to chew. Exercise, play and mothering time.
5.30 p.m.	...	Bath.
6 p.m.		4-6 teasp. sieved fruit or vegetables, with 2-4 teasp. Farex or baked breadcrumbs, toast sandwich (see recipe, p. 204). Artificial Milk feed.
6.30 p.m.	...	Sleep.
10 p.m.	...	Breast feed (usually omitted at this age, unless on alternative scheme of dropping 6 a.m. feed first). (See page 52.)

ROUTINE AND ADDITIONS TO MILK MIXTURES AT TEN MONTHS

TIME		
6 a.m.	...	Breast feed or Artificial feed.
6.30 a.m.	...	Sleep or play about in cot.
9-9.30 a.m.	...	2 tablesp. orange juice in 2 tablesp. water. Exercise and play in playpen. Wash and dress.
10 a.m.	...	(1) Baked crust. (2) 1-2 tablesp. sieved fruit. $\frac{1}{2}$ teasp. nut cream (or top milk) in 1 teasp. water. 1-2 teasp. Bemax or Froment. 1 teasp. soaked, well-chopped raisins or dates. (3) Artificial Milk feed.
10.30 a.m.	..	Sleep out in pram.
1.30 p.m.	..	1-2 tablesp. raw carrot or tomato juice in 2 tablesp. water <i>or</i> drink of clear vegetable broth. Play in playpen.
2 p.m.	.	(1) Baked crust. (2) 2-3 tablesp. sieved vegetables. 1-2 tablesp. mashed potatoes. $\frac{1}{2}$ teasp. butter. $\frac{1}{2}$ -1 teasp. egg yolk three times a week. 1-2 teasp. grated or milk cheese three days a week. 1 teasp. bean, lentil, pea or soya savoury once a week. (3) Junket, milk jelly, or baked custard, with baked apple. (Second course may be omitted if not wanted, and just a drink of milk mixture taken.)
2.30 p.m.	.	Out in pram.
4 p.m.	...	Drink of orange juice in water. Baked crust to bite. Play and mothering time and crawling about.
5.30 p.m.	.	Bath.
6 p.m.	...	1-2 tablesp. sieved vegetables with $\frac{1}{2}$ -1 tablesp. Farex or breadcrumbs, toast sandwich (see recipe, p. 204). Artificial Milk feed.
6.30 p.m.	..	Sleep.
10 p.m.	...	Omit this feed unless underweight, or omitting 6 a.m. feed.

At eleven or twelve months there may be fewer meals, but if so they will be larger. The amount of sleep is less, and the amount of exercise more. Meals should, for preference, not be eaten with the family—just the mother or some assistant to attend to the baby.

The child should learn from the start that he sits up in his chair for meals, and does not get down and run about in the middle, also to wash his hands and use the pot after meals.

MEALS AND ROUTINE AT ELEVEN OR TWELVE MONTHS

Either give meals as at ten months, with slight progressive increases of solids, and corresponding reduction of milk taken, if desirable, or, when the baby weighs about 20 lb., he can often progress to the three meals a day outlined below (see also page 51). The times for meals are suggestions only, and can easily be varied half an hour either way, if more convenient.

On Waking

Drink of diluted orange juice (fresh for preference). Play in cot, or wash and dress, and play in playpen till breakfast time.

Breakfast (8 a.m.)

- (a) One or two fingers baked bread or crust, with butter, to encourage chewing.
- (b) Grated raw apple or pear, or peeled grapes, or a peach, with 1-2 dessertsp. chopped soaked raisins, dates or prunes (stewed); or 1-2 tablesp. sieved prunes and 1-2 teasp. Bemax or Froment and a little top milk (or diluted nut cream).
- (c) Milk to drink, preferably from a cup.
- (d) Wholewheat bread and butter and honey if still hungry.

8.30 a.m.

"Pot". Crawl about, play in pen.

9.15 a.m.

Sit up in pram in garden.

10-10.15 a.m.

Drink of vegetable broth, *or* diluted prune, *or* raisin, *or* apple juice. Play with mother. "Pot".

10.15 a.m.

Sleep in pram.

Dinner (12.30 p.m.)

- (a) Baked finger of bread (may be omitted).
- (b) 2-3 tablesp. sieved vegetables.
- (c) 1-2 tablesp. mashed potatoes.
- (d) $\frac{1}{4}$ teasp. butter with potato or vegetables.
- (e) 1-2 teasp. egg yolk (2-3 days a week), *or* 2 teasp. grated cheese (2-3 days a week),

or 1 tablesp. curd cheese (1-2 days a week),
or 1-2 teasp. pea, bean, lentil, *or* soya
 savoury (1-2 days a week).

- (f) *Second Course* (omit if not wanted, and give small drink of milk):

Baked apple *or* sieved prunes, *or* black-currant juice *or* other fruit, with junket *or* baked custard *or* milk jelly, *or* top milk, *or* 1 dessertsp. finely grated nuts *or* ripe raw fruit, *or* mashed banana with top milk. "Pot".

1.15 p.m.

Play in playpen, *or* sit up in pram in garden.

2-230 pm.

Out for walk in pram.

4 p.m.

Drink as at 11 a.m., *or* water.

Crawl about on floor *or* in playpen.

Tea

(4.30 p.m.)

- (a) Baked bread as at breakfast.
 (b) 1-2 tablesp. freshly made raw carrot juice in equal quantity water.
 (c) 1-2 tablesp. sieved vegetables, with Farex *or* lightly crisped breadcrumbs.
and/or
 (d) Tomato sandwich (skins and seeds removed).
 (e) Home-made wholewheat biscuit *or* cake (not fruit cake) sometimes.
 (f) Milk to drink.
 (g) Piece raw apple *or* raw carrot to chew.

5 p.m.

"Pot." Mothering time.

5.30 p.m.

Bath and bed.

6.15 p.m.

Nothing necessary, but a small drink can be given in bed, if liked, possibly just a coffee cup of vegetable broth, *or* vegetable broth and milk, *or* just a drink of water.

Bedtime lullaby.

The amount of time spent in the playpen rather than freely crawling about, and to a certain extent the amount of time sitting up in the pram in the garden, must depend on whether the mother has any help *or* not, and whether there are other children, and also to a certain extent on the weather; but the baby does need plenty of opportunity for good exercise of all his limbs—i.e., freely crawling about—every day.

MEALS AND ROUTINE AT FIFTEEN MONTHS†

On Waking	Drink of diluted orange juice, or lemon juice in water with honey, or blackcurrant juice. "Pot". Exercises (games), deep breathing. Rub with towel. Wash and dress. Play in playpen* till breakfast if necessary.
Breakfast (8 a.m.)	<p>(a) Unpeeled ripe apple or pear (grated or chopped) or peeled grapes, or skinned orange segments, with chopped soaked raisins and 1-2 teasp. grated nuts and 1-2 teasp. Bemax or Froment with a little milk, or diluted nut cream (in a fruit saucer, to be eaten with a spoon); or Muesli (see recipe on page 205); or sieved prunes with grated nuts, Bemax, and milk or diluted nut cream.</p> <p>(b) Wholewheat toast, or bread, or baked bread, with butter and honey, or marmalade jelly, or rose hip or blackcurrant jelly (no skin or seeds).</p> <p>(c) Milk to drink.</p>
8.30 p.m.	Wash hands and face. "Pot". Crawl about and "talk" to mother while she clears away, washes up, etc.
9.30 a.m.	"Pot". Then sit in pram in garden.
10.15 a.m.	Out of pram to play and talk with mother. Mid-morning drink of vegetable broth or Vecon or diluted prune or raisin juice, or diluted orange juice. "Pot."
10.30 a.m.-	Sleep in pram in garden.
Dinner (12.30 or when ready)	<p>(a) 2-3 tablesp. suitably prepared vegetables e.g., carrots mashed, spinach or sprouts well chopped, cabbage (or other tougher vegetable) sieved, etc.</p> <p>(b) 1-2 tablesp. mashed potato (baked or steamed in its skin).</p>

† Between fifteen months and three years all sieving of vegetables can be given up. Tomatoes should still be peeled, but need not have seeds removed.

* Though often convenient for the mother, it is not always advisable to prolong the use of the playpen after fifteen months, especially with a forward child.

- (c) $\frac{1}{2}$ level teasp. butter.
 (d) 2-4 teasp. grated cheese,
 or 2-3 dessertsp. curd cheese,
 or coddled egg,
 or pulse or nut savoury.
 Alternatively, mixed vegetable soup with
 grated cheese.
 (e) Apple (raw or baked) or ripe peach, or prunes,
 or fruit salad, or grapes or pear, or other
 fruit purées with junket, or baked or steamed
 custard, or milk (evaporated can be used as
 "cream");
 or milk and fruit-juice jelly with grated nuts;
 or oatcake and butter with honey or minced
 dates, or (occasionally) steamed pudding
 (small helping), or apple charlotte.
 (f) Water to drink if wanted, at the end of the
 meal, but water is really better taken between
 meals.

Wash hands and face. "Pot".

- 1 p.m. In playpen while mother has her dinner.
 1 45 p.m. Crawl about and play.
 2.15 p.m. "Pot". Dressed for walk and sit in pram.
 2.45 p.m. Walk.
 4 p.m. Drink of diluted fruit juice. "Pot".

Tea

(4.30 p.m.):

- (a) 1-2 tablesp. freshly made raw carrot juice.
 (b) Baked bread to chew.
 (c) Salad sandwiches (wholewheat bread),
 or sieved vegetables (a stiff purée) with
 baked bread crispies (see recipe on page 209),
 or stuffed tomato, young lettuce and bread
 and butter, or tiny individual salad, with
 bread and butter and Yeastrel if liked.
 (d) Home-made wholewheat cake or biscuit or
 date sandwich (see recipe on page 204),
 and/or
 (e) One or two dates and piece of raw apple or
 carrot to chew.
 (f) Milk to drink.

Wash hands and face. "Pot";

- 5 p.m. Mothering time. Games, toys, picture books.
 5.30 p.m. Bath.

- 6 p.m. Bed. Lullaby. "Pot".
 Drink of water or vegetable broth, as at twelve months.
- 10 p.m. Lift and put on "pot" in half light without completely waking.

MEALS AND ROUTINE AT THREE YEARS

On Waking

7.15 a.m.

Put self on "pot".

Drink diluted orange juice or lemon-juice in water with honey or blackcurrant juice.

Exercises, deep breathing, friction rub (or "dry bath").

Wash and dress as much as possible himself.

Breakfast

(8 a.m.)

(with rest of family)

- | | | |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|-------------------------------------------------------------------------------|
| <p>(a) Ripe apple or pear or peach or grapes or orange
 Raisins or dates
 Nuts (to be well chewed, or may be chopped or grated)
 or Muesli,</p> | } | <p>either separately or as one dish, with a little top milk or nut cream,</p> |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|-------------------------------------------------------------------------------|

or soaked and simmered prunes or apricots or peaches (chopped if desired, but no longer sieved) with chopped nuts.

- (b) Wholewheat toast (or crust) with butter and honey or home-made marmalade.

- (c) Milk, or milk and hot water to drink.

Get down from table, wash hands and face. "Pot".

8.45-9.30 a.m.

"Help" clear away, wash up, make beds and dust, etc. "Pot".

9.30-11 a.m.

Either play in garden (preferably with play-mate, as this is too long to expect the child to amuse itself alone, yet it is best for it to be out of doors, especially in good weather),
 or "help" with cooking,
 or go for walk, possibly shopping,
 (or very often a combination of two of the above).

11 a.m.

Orange juice. *Short* story or game with mother. "Pot".

11.15 a.m. Sleep or rest. (On getting up, "pot".)

Dinner (12.30 p.m., probably with mother)

- (a) 2-3 tablesp. vegetables (mashed or chopped, no longer sieved).
- (b) 1-2 tablesp. potatoes.
- (c) $\frac{1}{2}$ (level) teasp. butter.
- (d) Grated cheese,
or coddled poached or scrambled egg,
or mashed baked beans,
pulse, lentil or nut savoury,
or small portion meat or fish (if not a vegetarian)—but this is not necessary, and in any case at this age meat should not be given every day, or more than once a day (see page 35),
or mixed vegetable stew with grated cheese.
- (e) Second course as at fifteen months.
Wash hands and face. "Pot".

1.15 p.m. Help clear away and wash up.

1.45-2.15 p.m. Look at picture book or play with toys alone, while mother has a well-earned rest. "Pot".

2.30 p.m. Walk. Part of this is a real walk now, and part should be in the pram, depending on the individual child's development and activity, but the walking part should not be overdone.

4 p.m. Drink of diluted fruit juice. "Pot".

Tea 4.30 p.m. (with mother)

- (a) 1-2 tablesp. freshly made raw carrot juice
- (b) Salad, with a little grated cheese.
- (c) Wholewheat bread and butter and Yeastrel (or Marmite) or home-made jam.
- (d) Home-made wholewheat cake or biscuit.
- (e) Two or three dates
- (f) Ripe apple or carrot to chew
- (g) Milk to drink. "Pot"

Clear away.

5 p.m. Mothering time. Games, toys, stories, music.

5.45 or 6 p.m. Bath.

Song or story in bed. "Pot".

10 p.m. Lift and put on "pot" in half light without completely waking.

TWO TO FIVE YEARS

The routine is much the same for from two to five years, but it may be rather an exacting period for the mother. The child needs companionship, and is full of vitality, and needs to express himself in all sorts of ways which may be inconvenient to the mother.

It is an age when the child is discovering his own personality, and is experimenting. A desire for power may result in tantrums when his own ineptitude frustrates him, and so on. His restless experimentations may exasperate and irritate his mother, but he should be allowed to "do things himself" if conceivably possible. This slows down getting dressed and undressed and the housework enormously, but the child cannot be expected to entertain himself without learning to do things with his mother. If the weather and accommodation permit, and some other little child can come to play in the morning, either in the house or garden, with the mother keeping a watchful eye on the pair of them, this is a beneficial arrangement for everyone. If no other child is available the mother must give more time to her child herself, either letting him "help" with making cakes, etc., or with gardening, or else she can take him for a morning walk or play games with him.

DAILY REST

The daily rest should still be kept up. This is partly for the child's benefit and partly for the mother's.

It can now be given:

- (a) Before dinner, in the morning, or
- (b) After dinner.

If the rest is to be after dinner, dinner can be given early, from 12 noon onwards, and the child put to rest afterwards. The chief drawback to this scheme, which otherwise gives the mother a good rest for her dinner, is that the child sometimes falls asleep and sleeps on for a couple of hours, rather spoiling the chance of getting out early for the afternoon walk, and leaving the child far from ready for bed by 6 p.m.

After the age of two and a half to three years the child who is in the habit of going to bed about 6 p.m. will seldom sleep in the daytime, but will enjoy looking at books or playing with a toy for the rest period, which then comes conveniently after dinner. This after-dinner rest should be kept up throughout childhood. Many schools have it nowadays, and it is a thoroughly sound plan always to have at least half an hour's rest after the midday meal during the school holidays as well.

MEALS FOR THE OLDER CHILD

The principles for feeding children remain the same throughout childhood, though the quantities vary with the age of the child and also with each individual appetite.

Breakfast

As a general plan breakfast should consist of some fresh ripe raw fruit with some sweet dried fruit, such as dates or raisins, and some nuts and milk. If fresh fruit is unobtainable, more prunes must be used, or even celery or crisp lettuce leaves, watercress or tomatoes, served not as made-up salads but in separate dishes.

An excellent breakfast or teatime winter dish is one or two tablespoonsful of grated raw carrots served with one or two tablespoons of crisp breakfast flakes and a little milk in a fruit saucer. Some children enjoy having this every day. This can be followed by one hundred per cent. wholewheat bread or toast, with butter (or margarine) and honey or marmalade, and milk to drink.

Bircher-Benner Muesli, or some variant of it, makes an excellent breakfast dish (see recipe on page 205). If apples are in short supply, grated raw carrots, mixed with tinned blackcurrant purée, can be used, or soaked simmered and chopped prunes or apricots.

Midday

The midday meal should always include a large supply of conservatively cooked vegetables, with some protein savoury dish, and potatoes cooked in their jackets. The second course should contain fruit in some form or other whenever possible. Milk puddings are not desirable, but wholewheat steamed fruit puddings or treacle (black for preference) puddings can be served for a change; or oatcakes and celery and watercress and cheese, or sweet or savoury wholewheat rusks (see recipe on page 206).

Tea

The teatime meal should regularly include some raw salad, as much as the child will eat, even throughout the winter. Raw cabbage heart, raw Brussels sprouts, raw broccoli flowerets or cauliflower flowerets, grated carrot or beetroot can all be used, as well as the more usual raw vegetables, with grated cheese, or sometimes an egg, or baked cheese potatoes.

The salad can be accompanied by, or followed with, one hundred per cent. wholewheat bread and butter, or baked potatoes and butter. Home-made wholewheat cake or biscuits

or dried fruit and a drink of milk can complete the meal. If bananas are available this is a good meal at which to include them. Good vegetable soup, and 1-2 oz. of freshly made raw carrot juice or tomato juice can sometimes take the place of the salad.

Tea and Coffee

Tea and coffee are not desirable for children and should not be included in their meals. Milk, or milk and hot water, orange or lemonade, tomato juice, vegetable broth or honey tea are suitable drinks for children, or if a "food" drink is sometimes wanted slippery elm, or Ovaltine, or Bournvita.

Milk and biscuits at 11 a.m. do not fit into the scheme of meals here outlined, an apple being considered a more desirable "elevenses". However, if all the other children have milk and biscuits it may do more harm to a child to make him "odd" by refusing to allow him these things than it does to include them, and unless the child gets colds or is catarrhal, it is probably best to let him do as the other children do. Often it is not the milk the child covets but only the biscuits, and this may possibly be arranged. (During rationing of biscuits the trouble about them is, in any case, non-existent.)

THE GROWTH AND CARE OF CHILDREN'S TEETH

From six months until nearly three years old the baby will be cutting his first milk teeth.

On an average he will have:

6 teeth by one year;

16 teeth by two years;

20 teeth by three years.

These are all the first, or milk, teeth and will all be shed between the ages of, roughly, seven to twelve years, and be replaced by the permanent teeth. Usually the first four permanent teeth to appear are called the "six-year molars", and these erupt behind the milk teeth, one in each side of each jaw (sometimes some of the milk teeth may be shed before these erupt).

Four more permanent teeth erupt behind these, later on, called the "twelve-year molars", and later still, towards the end of adolescence or later, the last four molars, or wisdom teeth, erupt, making a total of thirty-two permanent teeth in all.

The effect of a good diet for the mother during pregnancy and breast feeding, and for the baby himself, both on the ease with which the teeth erupt and on the soundness of the teeth when grown, is very great. Wholewheat bread, dairy produce and good vegetables are vital to good teeth, and soft mushy baby foods, made from refined flours and white sugar, and boiled milk are bad.

Teething

Some babies cut their teeth most unobtrusively, and others get fretful and feverish and may even develop bronchitis. Breast-fed babies, who have their proper complement of fruit and vegetable juices and purées and baked crusts to chew at, tend to cut their teeth easily, and babies who are over-fat, or fed on artificial milk mixtures, with sloppy starchy baby foods, tend to have more difficulty with their teeth. Overweight babies are the ones most liable to show signs of bronchitis.

If the baby is out of sorts with teething, especially in hot weather, the strength of the milk mixture should be reduced and extra cooled boiled water or clear vegetable broth should be freely given to drink. Usually the acute stage of teething goes off in a few days, even if the tooth has not quite come through.

The habit of brushing the teeth morning and evening is one best acquired early, so that it becomes so automatic that it is easier for the child to carry out the routine than it is to omit it, even if away from home.

At first just a soft baby toothbrush with no toothpaste can be used, the mother always lightly brushing away from the gum—i.e., the top teeth downwards, and the bottom teeth upwards.

This can become a part of the bath routine any time from about one year, and should certainly be begun by two years, at which age the child can begin to brush his teeth himself, with the mother supervising, and can also use a mild tooth powder or paste.

Decay

It is not natural for a child's teeth to decay, and if the blood stream is clean and properly nourished with all the essential mineral salts and vitamins, children's teeth should be perfect.

Even so, it is a wise precaution to visit a good dentist once a year from the age of about five to six years. If treatment should prove necessary, it may be advisable to go twice a year, so that any decay that does start may be dealt with at once.

Decay of the milk teeth, even though they are to be shed, is undesirable in itself, and also may be an indication that there is, or has been, some deficiency in the child's food. If decay starts before a child is even five years old it is usually a sign of antenatal deficiencies, and every effort should be made to ensure an extra good supply of natural whole foods and sunshine, to try to counteract the initial defects.

Apart from this, decaying milk teeth should receive dental treatment if feasible, for two reasons. Firstly, the decay of one tooth may be the cause of decay starting in the one next to it. If this should happen to be a six-year molar tooth—*i.e.*, a permanent tooth—then the child may possibly be getting a permanent tooth damaged unnecessarily at a very early age, just through failing to have attention given to a damaged milk tooth. Secondly, as the time for shedding the milk teeth approaches, their roots are slowly reabsorbed into the blood stream, so that they fall out easily. If they are decayed, then the poison may very easily be reabsorbed into the blood stream, as well as being swallowed in the saliva.

The health of the teeth is built up from inside by means of a good blood stream, and the enamel of the teeth—*i.e.*, the outside covering—is the hardest structure in the whole body. The danger spots in all teeth are at the junction of the tooth and the gum, and the deep crevices in the grinding surfaces of the back teeth, or molars, and in the crevices between the teeth. This is why the teeth should be kept clean by careful brushing, because particles of food if left between the teeth or in the crevices can turn acid, and so corrode the tooth's protective covering of enamel and start the formation of a hole. The better and stronger the teeth, and the healthier the blood stream, the less likely is this corrosion to cause decay, but it is wisest not to give it a chance.

Toothbrushing should not, however, be done too hard, or with too stiff a brush or too violent a toothpaste, as excessively hard brushing can damage the tender tissues where the tooth emerges from the gum. If this is done the gum will in time recede a little, and so the base of the tooth below the normal level of the gum may become exposed. This part is not covered by the enamel, and so once it is no longer protected by the gum it may readily start to decay. Hence the previous advice, to brush the top teeth downwards and the bottom teeth upwards. For the back teeth the grinding surfaces should be well brushed backwards and forwards as well.

The regular consumption of baked fingers of bread or pulled bread in early childhood is excellent for the teeth. It gives the jaws good exercise, and so increases the supply of blood to this section of the body, and not only helps the teeth to erupt but also helps the good development of the jaws and proper spacing of the teeth.

Mothers of babies who are fed as previously suggested, that is, breast-fed and given the appropriate fruit and vegetable juices and purées, and baked bread to chew at, need not fear that their children will have overcrowded, misplaced or decaying teeth, or a badly shaped palate if correct feeding is maintained throughout childhood on whole unspoiled foods.

It is a mistake to give a child a sweet or piece of chocolate when settling off to sleep. Quite apart from the fact that this can develop into unwise indulgence, the sugar of the sweet left in the child's mouth can start decay. Nothing should be eaten, except possibly an apple with its skin on, or a drink of fruit juice, or vegetable broth, once the child has brushed his teeth and got into bed.

CONCENTRATED VITAMIN PREPARATIONS

If a child is fed according to the ideas here outlined and gets plenty of sunshine, fresh air and exercise, there should be no need to bother about vitamins. However, because of the ill-health resulting from the many deficiencies in modern civilized diets and environments, it has become the custom to use concentrated vitamin preparations on a very large scale. Cod liver oil or halibut liver oil appear to be considered by many people to be absolutely essential for the health of children, because they provide vitamin A and vitamin D in large amounts in very high concentration.

Yet the natural way for the child's body to get much of his vitamin A and D is distributed through his food in butter, eggs and vegetables such as carrots, and to get much of his vitamin D through the action of the sun on his skin. These natural sources are largely ignored in favour of propaganda to use an extracted fish liver oil, or manufactured concentrate, yet the natural supplies are likely to be far the best, the manufactured article being only a poor second.

Natural sources of vitamin A are available throughout the year; and vitamin D can be stored up in the child's own body, to last him through the winter, if he gets plenty of natural foods, and sun and air bathing during the summer. There ought, therefore,

to be no need for these vitamin preparations, which are often advised in amounts far beyond the body's normal requirements.

However, where the natural supply of these vitamins has been faulty or where there has been some excessive drain on them, as in ill-health, it may be desirable to use small quantities of some vitamin preparation for a short time as an emergency measure, particularly in the late winter or early spring. No more than half a teaspoonful of cod liver oil twice a day, or a few drops of halibut liver oil, is needed to supply the whole of one day's normal requirements. A preparation of oil and orange juice, such as Haliborange, is a good form in which to take additional vitamins when any are necessary.

REFUSAL OF FOOD

Sometimes mothers say "My child will not eat", with a mixture of pride and despair in their voices—pride, because they cannot help feeling the child is perhaps extra-sensitive, or particularly highly strung, in some way above the ordinary mundane things of life; and despair, because of the time, energy and ingenuity expended in getting their child to eat even the merest scraps.

Now there is nothing beautiful or refined or spiritual about a child who refuses to eat his meals, though it is sometimes a pathetic demonstration of mismanagement. Refusal of food is abnormal, just a pathological symptom of certain conditions.

A child will refuse meals for any of the following reasons:

- (1) If he genuinely dislikes the specific article of food offered.
- (2) If he has had his appetite spoiled by eating bits and pieces (usually sweets or sweet cakes or biscuits) between meals.
- (3) If he is not hungry or if unsuitable food is offered. (And not always then.)
- (4) If he is feeling ill or out of sorts.
- (5) If he is living in conditions of emotional stress and disturbance.
- (6) *If he finds that he can get more satisfaction out of refusing food, and of making a show of not eating, than he does out of eating normally.*

This last is the common reason for any systematic refusal of meals by an admittedly healthy child. Psychologically such a child is not healthy.

There is nothing calling for either pride or despair in failure to eat. With children, as with animals, "going off his food" is often the first sign the mother has that her child is a bit out of

sorts and in need of special care. It may be just that he has eaten something that has disagreed with him, or he may have eaten too much the previous meal, or he may be sickening for some infectious disease, or he may, for no very specific reason (possibly even because of a change in the weather), just feel he is not hungry and does not want any food at that meal.

The mother cannot say offhand which of these reasons is actually operating, but if, in any of the above circumstances, she fails to respect the child's instinctive disinclination to eat, and tries to coax some food into him, she will be asking for trouble.

If the child's stomach is already a bit upset by something previously eaten, then more food will only upset it further.

If the child ate too much at a previous meal, he needs extra time for the stomach to cope with the excess. Additional food may easily turn a temporary indiscretion, for which the child's instinctive refusal of food is subconsciously trying to compensate, into an actual bout of sickness.

If the child is sickening for an infectious disease, then he *should* refrain from eating any more food, as food will only put an added strain on a system already under abnormal stress, and the sooner a fast is started the less serious the illness will tend to be.

Emotional Disturbances

Any emotional disturbances can be a serious cause of upsetting a child's appetite, and where such conditions continue to exist, the ensuing advice on how to set about overcoming a child's refusal of food cannot be expected to operate.

If there is discord between the parents, or possibly between the mother and grandmother, or disagreement over the child's training or what he should or should not eat, then the child may easily react by going badly off his food. In such cases it is essential to remove the causes of the emotional disturbances before attempting to tackle the failure to eat. When the emotional atmosphere has been put right the child's normal appetite will soon tend to reassert itself.

Absence of Hunger

Since hunger is the body's way of asking for food when needed, absence of hunger means that the body does not want food at that particular time, and is, therefore, a state of affairs it is only reasonable to respect.

Any mother who habitually coaxes and cajoles her child into eating vitiates these normal and desirable processes, for she has no means of deciding whether any of them are operating, or whether

the child is just carrying out his normal reaction to her pressure to eat his food.

Most mothers who have to coax and pet their children into eating would probably agree that it is a terrible nuisance, even though there is some evidence for suspecting that they do get a subconscious psychological satisfaction out of it. But assuming they are really anxious to overcome the trouble, it is essential to try to understand first of all how the pathological condition of repeatedly refusing food when healthy (and hungry) has grown up.

The seeds of it are often sown when the child is very tiny indeed, round about weaning time and the first introduction of spoon-feeding. Inevitably mothers have to spoon-feed to start off with, but they often make two mistakes. Firstly, they go on feeding the baby long after he should have started to do part of the job himself, and so kill the child's interest and make him lazy; and, secondly, they try to give the child far too much. If the mother sets out to give a child of eight or nine months two tablespoonfuls of some food when two teaspoonfuls would be adequate, she is bound to get an adverse reaction from her baby. If she persists day after day, the baby will, in self-defence, refuse more and more, so that each meal becomes either a game or a battle between the mother and her child.

Mothers often fail to realize just how little food, compared with an older child, a child of two or three years can thrive on, and become worried and anxious even when a child is actually having plenty of food. This is borne out by the fact that children who are said to "eat practically nothing" are seldom seriously underweight, though they may be rather nervy and unstable, as a result of the over-anxious atmosphere in which they live.

It is much easier to prevent this state of affairs from ever arising than it is to cure it. If a baby is brought up to continue actively helping in feeding himself, as he does when breast feeding, it will go a long way towards avoiding many of the troubles that arise over toddlers' meals. Mothers really often make these troubles for themselves.

The child should *never* feel that he eats to please his mother or that she is worried if he refuses food, for he should eat to please himself and to satisfy his normal hunger. Left to himself, the child has a natural and healthy attitude to food, just like a little puppy. When he is well he should always be ready and hungry for meals, and something has gone sadly wrong with his environment and management if he has to be coaxed and petted before he will eat.



" The child has a natural and healthy attitude to food something
has gone sadly wrong if he has to be coaxed to eat ' (June at the age
of 2½ years)

Systematic refusal of food is really largely a matter of
"showing off", and should be treated accordingly, by ignoring it.

Faddiness

Faddiness of children over their food is a variation of refusal
of food, but is closely allied to it, and is most undesirable, and is
usually a sign of errors in management of the baby's or toddler's
diet in the early days. A healthy appetite, supplied with the right

types of foods, should take pretty well everything in its stride, and the leaving of crusts, or a tendency to whine and complain about not liking various foods, should never be allowed to start.

However, it is only reasonable for mothers to respect, and make suitable allowances for, specific, personal idiosyncracies in their children, or any particular likes or dislikes. For instance, a child can dislike, say, parsnips, without being considered "faddy".

A True Story

Before giving suggestions for overcoming the case of the child "who will not eat" an illustration of the hopeless state that mothers can get into is given here. The more extreme cases of refusal of food appear to arise when there is a grandmother or assistant helping to look after the child as well as his mother—that is, a bigger audience!

In order to get certain items of diet into their children—items that are no doubt highly commendable in themselves—mothers will sometimes let themselves sink to incredible depths of moral degradation, unfortunately dragging their children with them as they go. Even if they eventually achieve their immediate result, the price paid is out of all proportion to the value of the result achieved.

The following conversation (heard recently, and repeated nightly, with minor modifications) is a good illustration of this point. (Grandmother also present.)

MOTHER: "Now, darling, here's a lovely glass of creamy milk for you. Aren't you a lucky little girl!"

CHILD: "I don't want it".

MOTHER: "Of course you do, darling. Think of all the poor little boys and girls who don't get the chance of lovely milk like this".

CHILD: "I don't *want* it" (glancing at grandmother).

MOTHER: "Drink it up, darling, it will do you good".

CHILD: "I *don't* want it".

MOTHER: "I'll give you a chocolate when you've finished it".

CHILD (alert): "Give me the chocolate first and then I'll drink it".

MOTHER: "No, darling, milk first, then the chocolate".

CHILD: "I promise I'll drink it after the chocolate".

MOTHER: "Oh, very well, darling, if you prefer it that way—here you are". (Child eats chocolate and drinks some of the milk.)

CHILD: "There, I've drunk half of it".

MOTHER: "Now finish it up".

CHILD: "I don't want it".

MOTHER: "Come along, finish it up, and you can have *another* chocolate".

CHILD: "Give me the chocolate first".

MOTHER: "No, darling, you've had *one* chocolate".

CHILD: "And I *have* drunk half the milk".

MOTHER: "Oh, well, I suppose you'd better have it". (Gives chocolate—child finishes milk.)

That child certainly did eventually get the milk inside herself, but at what price! She also learnt:

- (1) To disregard, and therefore lose respect for, her mother.
- (2) To make her mother change her mind by her own persistence.
- (3) To realize she herself could make and break a promise, and *benefit* from doing so.

Could any glass of milk be worth one hundredth part of that appalling bad training?

Suggested Method of Overcoming Refusal of Food

Anyone can "cure" a child of persistent refusal of food if they really want to do it, but first of all they must be sure that the emotional atmosphere of the home is right. Secondly, they *must* convince themselves that their child will not starve to death if they no longer coax and worry him to eat and must be prepared to let some meals be completely omitted without comment. Thirdly, they must let the child realize both by word and deed—or perhaps by absence of deed—that they are no longer worrying about what the child does or does not eat. It is often harder to convince the child than it is even to convince themselves that there is no need to coax him to eat, and if they have any lingering doubt in their own mind, or are still anxiously afraid the child may fade away, however much they try to hide it, the child will sense this anxiety and will subconsciously play up to it, and still continue to refuse food, so that a vicious circle is set up. Fourthly, they must see that the food offered is the best available, properly cooked and attractively served.

In really severe cases, where the mother cannot divest herself of her fears, the child will recover soonest—and it is definitely a case of recovering, as from any other illness—if he goes away from his

mother for a holiday, preferably to a farm in the country, with some other normal child of about his own age.

If only small helpings of food are given, and no comment made on what he eats or refuses, but everything taken for granted, the child will soon lose the sense of importance which refusing his food has previously given him.

If the mother is setting about curing her child herself, there are certain practical methods to adopt, as well as getting the right atmosphere over to the child.

The mother can tell the child that "the doctor says" he is now so much more grown up that it doesn't matter if he doesn't want to eat his meals, he can just go without them. He cannot, of course, have anything else instead, nor can he, after missing his dinner out, say he is hungry about three o'clock and have cake or biscuits given to him. Tea can begin rather earlier than usual, but no bits or pieces may be given before this.

Then the mother should give him only the minutest helpings. She should aim at putting *less* on the child's plate than she thinks the child will eat (not ought to eat) without any help. She should not at first even offer a second helping, but if the child asks for more, the mother should rather grudgingly give a very small second helping, possibly just commenting on her child's large appetite but not showing much interest either way.

Sometimes a small child prefers to eat the pudding first. This does not matter, especially if the "pudding" is raw fruit, as it most often should be, for it is sound dietetics to begin with it.

Greens are a particular bugbear to the mother whose child is "difficult" over food. Habitual refusal of greens is usually the result either of bad cooking or of failure to introduce them at an early enough age in small enough amounts.

To overcome this, greens in all forms should be made as attractive as possible by careful selection of fresh young material and careful conservative cooking. They can be dressed with a little plain cheese (or Marmite) sauce or served with grated cheese. Again only *very* small portions should be given, combined with some other article of food that is relatively popular (also in a very small amount). No second helping of the popular food should be given until all the unpopular green is finished, when a small amount of the popular one is given by itself. If more is wanted another minute portion of greens comes first. Sometimes a child will prefer raw salads to cooked greens, and this preference should be respected.

Small Helpings

The smaller a child's appetite, the less food should be put on his plate. A large plateful of food set in front of a child with a small appetite is enough to put him off eating anything at all, whereas a really small plateful might have been eaten with relish.

A little company at mealtimes may be a great help, but just one child visitor with a normal appetite is the best idea—not any sort of party, which often makes lots of children too excited to eat.

CHAPTER IV

THE CHILD AND HIS RAW MATERIALS

FRESH AIR, SUNSHINE, WATER

ANCIENT philosophers held that there were four "elements," earth, air, fire and water, out of which everything else was made, including them in different proportions. Many of their beliefs are smiled at nowadays, but these four "elements" are still actually the basis of all life.

If "earth" represents food, and "fire" the sun, the truth of the statement is easily seen, as it then becomes food, air, sunshine and water. The importance of the first element, the earth—or, rather, the food that comes from it—is given in earlier chapters. The other three are also vital raw materials of the child's growth, and are dealt with here.

AIR

Air contains oxygen, which all living things must have for their continued existence. Very many people live out their years only half alive, because they are continually short of fresh air. That is to say, they spend most of their time indoors, in houses, offices, or picture theatres, where the air is stale and poor. There is not the full percentage of oxygen in such air, and it contains far too much of the breathed-out wastes from the people present in it. Very often, too, the air in which people spend much of their time is further contaminated with tobacco smoke. Such air is hardly worth breathing at all, and is particularly undesirable for young children. The normal subconscious reaction of the body to such air is to breathe as little as possible of it. The lungs are rarely expanded to anything like their full capacity, so the body is doubly starved of oxygen.

Just as a fire burns more brightly when well supplied with oxygen (as when bellows are used), so do human children enjoy increased vitality if they have the maximum amount of fresh air.

For this reason they should live out of doors as much as possible and sleep with the windows wide open at night. If there is a garden to their home, however small, this is the place for them to play. They need the contact with the earth, Mother Earth, which this gives them, as well as the air they get to breathe. Town-bred children get far too little contact with good, plain

earth. Most of it is buried under pavements, and we are apt to forget that "under the pavements the live earth aches". The ancient wisdom of the East recognized the importance of the magnetic currents of the earth, and though many people scoff at such things nowadays, close and continued contact with the earth is exceedingly good for children. For this reason, camping holidays are ideal for them, and with suitable care and forethought even babies and toddlers can camp and enjoy themselves.



"Camping holidays are ideal for children even babies and toddlers can camp and enjoy themselves" (June and Merrill at the ages of 10 years and 12 years)

It is not only in summer that children should play out of doors, but all the year round. If suitable clothes are worn, they will enjoy playing out of doors a great part of even the winter. Wellington boots are an essential for this, as part of the fun of out of doors in winter is walking through puddles. Warm but not excessive clothing, and possibly gloves, are necessary. Inevitably

some children naturally enjoy the "out of doors" more than others, but it is a good interest to encourage in them as much as possible. If lucky enough to have a house with a sheltered verandah, this is ideal for winter days, but such houses are few and far between. If there is no possibility of a garden, then the room indoors in which the child plays should have the windows wide open, if necessary extra clothes being put on the child, at any rate for part of the day. Some sitting-still occupations demand a reasonably warm room when the windows will need to be partly closed. At night the window should always be wide open, except during town fogs, which are not fresh air. It is quite impossible to overestimate the importance of good, clean, fresh air as one of the essential raw materials for building up a healthy individual, unlikely to develop colds and infectious diseases.

It is not enough for the child just to breathe fresh air; he needs to have the stimulating contact of air on his skin all over his body. The natural delight of children in running about naked is a healthy practice. An "air bath" should be part of the child's daily routine, and can take place before the more ordinary water bath at night, or, more preferably, before the child gets dressed in the morning. This is the time for a few play exercises and some regular deep breathing by a wide open window. (See p. 95.) Deep breathing is as valuable a habit to establish as regular bowel evacuation and brushing the teeth.

Babies should sleep in their prams in a sheltered spot, with the hood of the pram down, so that each breath they draw is a breath of new air. If the pram hood is up, the breathed-out air is trapped above their heads and they are compelled to re-breathe the air they have only just breathed out.

It is wisest to put the pram in the shade, preferably the shade of a tree to break the glare, for though the child needs sunshine, lying in direct sun will be uncomfortable, and even lying staring directly up into the sky without any sun, may strain and tire the baby's eyes. The child gains enormously from just breathing the sun-soaked air. If there is no natural shade available, as when going for a walk, then a canopy will have to be used; but the pram hood should *never* be used to keep off the sun; it makes the inside much too hot and airless. The value of the pram hood is to keep off the rain, when going for a walk, or, put just half up, as a wind-break. Some people, imagining they are getting fresh air, put the baby in the pram out of doors in all weathers, and if it is raining they put the hood

up and the apron over the body of the pram and even half-way up the hood. The baby inside is getting much *less* fresh air than he would if he were put to sleep in his cot beside an open window.

SUN

Combined in importance with fresh air is sunshine, but since fresh air is always available, and sunshine is not, the fresh air habit is easier to establish than a sunshine habit. One can have an air bath every day, come what may, but in this country it is not possible to establish a habit of having a daily sun bath.

The value of sunshine is universally agreed, even though the knowledge of its importance is not always put into practice.

Everyone has felt the uplifting and invigorating effect of the first emergence of the sun after a period of dull and cloudy weather. This is no accident. The sun is the ultimate source of all life. It gives renewed vitality to both body and spirit, and sunshine is, therefore, one of the most important raw materials for children's growth and development, just as it is for flowers.

The full action of the sun is not even yet claimed to be known, but it is known that when its rays play on the skin, then the essential vitamin D can be manufactured in the child's body. It is reasonable to assume that this "home-produced" natural sunshine vitamin is better adapted to the needs of the child than are the manufactured and processed vitamins done up in little bottles and sold at extravagant prices.

In practice, a child whose food is right—that is, natural, properly grown and produced, and unspoiled by bad manufacturing or cooking processes—and who gets plenty of free exercise in sunshine and fresh air, has no need of the much advertised vitamin D preparations.

The intangible feeling of well-being that the sun gives is equally valuable in its own way, and it probably has more than a psychological effect. It really does do us good, quite apart from the production of vitamin D.

Sunbathing

Even tiny babies will benefit from sunbathing, if it is suitably controlled. It is important to begin gently, exposing just a small portion of the body, say the legs, for a minute or two only. The best place to do this is by an open window where the sun is shining in, as the baby is protected from unsuspected winds, and the best time of day is the earlier part of the day. This often

means, in practice, before the 10 a.m. feed. If there is no sun at this time, the sunbath can be given when the baby is again awake before the 2 p.m. feed, but in midsummer the sun is hotter then and more liable to scorch the skin, so extra care is necessary. It may be possible for the child to have a ten minutes' bathe at 9.45 a.m., whereas at 1.45 p.m. two or three minutes would be all that was desirable.

As the baby gets acclimatized, more and more of the body can be exposed, until he can kick in the sun quite naked. It is, however, always wisest to protect the head and eyes with a sun hat if the sun is really hot. Children who cannot stand much sun are often helped by wearing dark glasses, but this need not be a universal practice.

The same precautions apply to older children. They can often play about in the garden in summer with nothing on at all. If the sun is very hot, a hat should be worn. Children vary as to the necessity for a hat, some being able to stand much more sun both on their heads and in themselves generally than others. Mothers have to go by whatever they know by experience best suits their own child, irrespective of what the child next door does.

Protecting the Skin

Even though the mother tries to acclimatize her child gradually to the sun, some protection for the skin may be necessary. Our sunshine comes rather in sudden bursts, so that to make the best of it, it is really wisest—especially if at the seaside, where the sun and air are exceptionally strong—to rub a little olive oil into the skin before exposing it to the sun. If any sign of pinkness occurs, the exposure to the sun has probably been slightly overdone and should temporarily cease, or blistering and burning may follow. If a child's skin gets sore at midday, it goes on getting more sore towards evening, even if no longer exposed. The scorching is progressive, hence the need for care.

If there is a period of long, sunny days, even the well-acclimatized child should not spend the whole day in full sunshine. Much benefit comes from "sunbathing in the shade". That is, the child has no clothes on but plays in the shade of the trees. The sun-soaked air will still give the child its goodness. If in direct sunshine in the middle of the day, it is often both wiser and kinder to see that the child wears a loose cellular shirt and pants, as well as a hat. The little shoulders can get surprisingly

sore otherwise, even if protected with a little olive oil. Children who are used to going about naked in the sunshine can carry the practice well on into the winter. They remain warm with very little clothing. Some children continue to have a daily naked period in the garden throughout the whole winter.

Treat the Sun with Respect

To sum up: the sun is the primal source of life, and it is of inestimable value in giving children health. They should get the benefit of the sun in the following ways:

- (1) By direct action on their own skins.
- (2) By indirect action on their skins by reflection from other objects and from sun-soaked air when themselves in the shade.
- (3) By eating "sunshine foods"—that is, fresh, ripe, *raw* fruits and tender young *raw* vegetables.

At the same time it must be remembered that the sun is also a destroyer of life. Cut flowers soon wilt in the sun, and germs and bacteria, when exposed to direct sunlight, are rapidly eliminated, so this side of its activities must be remembered, too.

Too much playing about in the sun, even with clothes on, but more so if naked, can prove overtiring for a child, even if it does not get a headache. Quite apart from actual sunstroke (with sickness, headache and sometimes a temperature) excess of sunshine can be very exhausting to a child, and produce a condition something akin to the wilting of flowers in excessively hot weather. For this reason the sun should always be treated with the respect it deserves, and its use should be properly understood.

Sun Lamps

Modern scientific discoveries have made it possible to imitate some of the sun's rays by "artificial sun" lamps. In some cases the use of these as curative agents has been shown to be helpful, but is very doubtful if their routine use in the ordinary home, even in our sunless winters, is really a good thing. If the children have all the natural sun in the summer that they possibly can and have daily air baths, doing play "exercises" naked by an open windows even in the winter, they will have no need for any artificial sunlight. Inexpert use, or excessive use of sun-lamps can be definitely harmful.

WATER

The next raw material is water. The need to give children water to drink is universally recognized, and so is the need to use water externally in their bath. The value of water for an internal bath (or enema) is less widely appreciated, but it can be very useful, and finally there seems to be a fundamental psychological need for the child to *play* with water as well. Water is very messy and the child is bound to get his clothes both wet and muddy, but playing with water will often keep a child happy for hours. It seems to satisfy some deep and primitive



"Playing with water will keep a child happy for hours. It seems to satisfy some deep and primitive need" (Merril at the age of 2½ years)

need. Incidentally, the child who is allowed to play with earth, stones and water will need few other toys, since he "discovers" an infinite variety of treasures for wonder, experiment and delight.

In the winter a small amount of water only is best, but in the summer an old bath can be used, and sometimes a hosepipe. This latter is a particularly happy innovation if it is impossible to give the children a seaside or river holiday.

Happy Childhood

If we want to conjure up a picture of healthy, happy childhood, it is hard to beat the vision of a little naked three-year old busily making mud-pies in a sheltered sunny garden.

CHAPTER V

THE CHILD AND HIS ENVIRONMENT

PHYSICAL ENVIRONMENT, SLEEP AND EXERCISE

AS soon as a baby is born he exchanges a perfectly comfortable, warm, dark, moist environment for a very different set of conditions—conditions that may easily, for all we know, seem very much less attractive. He has to adjust himself to all the strange impressions and influences that make up this new environment, and he has to learn to breathe and to eat, to assimilate and to excrete his food. The loss of complete physical contact all over his body with his mother, and the adjustment of having his skin dry, and covered with clothing, instead of being moist, without clothing, must make considerable demands on the baby. It is possible, too, that he may feel very lonely.

The baby's environment consists of ever-widening circles:

- (1) Mother's arms.
- (2) Clothing.
- (3) Cot and pram.
- (4) Playpen and nursery.
- (5) Toys.
- (6) House and garden.

Mother's Arms

These are the essential environment at first, bringing love, security, comfort and warmth to the baby, and being associated with the joy of breast feeding. They grow progressively less important, but they are a necessary sanctuary in times of trouble or stress which should be available, when required, for many years, or rather, for ever.

Clothing

The skin is an important organ of excretion, and also for helping the body to adapt itself to changes of temperature, so at no stage should it be overclothed, or covered with non-porous materials.

Even from birth the first garment next the skin should be a fine cotton cellular type of garment, other clothes being in accordance with the child's age and the time of year. (Clothes for small babies are dealt with in *Having a Baby Easily*).

Winter Clothes

(a) *Indoors*

- (i) Cellular vest and knicker linings.
- (ii) Loosely knitted long woollen vest (long sleeves if very cold, if preferred).
- (iii) Rompers or jerseys and shorts, or knickers and frock, or jersey and skirt on bodice or braces.
- (iv) Cardigan if very cold.
- (v) Woollen socks, and shoes or sandals when walking.
- (vi) Nappies when in bed or pram instead of knickers.

(b) *Outdoors*

- (i) For play in the garden: dungarees, Wellingtons, old but warm coat, cap and gloves only in very cold weather. Mackintosh and hat if wet.
- (ii) For afternoon walk (if in pram, rug also needed): Warm leggings, shoes, warm and windproof but not excessively heavy coat. Cap and gloves if very cold. (A waistcoat made of chamois leather is a useful wind excluder under a lightweight coat.)

Summer Clothes

These should always be the absolute minimum to keep the child comfortable. Nowadays they can be very pretty, without being in any way uncomfortable. Whenever possible they should consist simply of:

sun suit, sandals and, if necessary, a sun hat.

Most children enjoy being as nearly naked as possible, as much as possible, and acquire a marvellous hardihood if this is encouraged.

When clothes are worn they may consist of:

(a) *Indoors*

- (i) Cellular vest (omitted in good weather).
- (ii) Cotton frock and knickers, or blouse and buttoned-on shorts. (Shorts for little boys must always be large enough in the crotch, though they can be extremely brief in the legs. Tightness in the crotch may lead to considerable soreness and discomfort, and may start bad habits.)
- (iii) Cardigan if chilly.
- (iv) Open sandals. Rubber gym shoes should not be worn regularly, though they are excellent for the seaside.

- (v) Nappies instead of knickers when in bed or pram, until reasonably reliable.

(b) *Outdoors*

- (i) In the garden, if not in a sun suit:

Jersey or cardigan and dungarees over indoor clothes (short-legged dungarees for preference).

Bare feet if the garden conditions permit.

- (ii) Afternoon walk:

Sun suit and sandals, or frock and cardigan as conditions dictate.

Little girls whose hair is growing should have it tied up, so that it does not fall in their eyes. For playing in the garden a piece of thin coloured tape is preferable to a ribbon as it stays on better, and it does not matter if it does get lost.

For seaside and holiday wear, a convenient and adaptable outfit for either boys or girls is just a pair of boys' woollen bathing trunks, with a sweater for cold days, and a sun-top or aertex shirt for hot days.



A convenient and adaptable outfit for seaside and holiday wear. (Merril at the age of 12 years.)

Shoes—Care of Children's Feet

It is good for a child to run barefoot on clean grass, or on the sea shore, but normally nowadays shoes have to be worn. Shoes should be of a good natural shape: the inner line of the shoe should be straight, not turned into a point, and the heel should be flat. Children's shoes and socks should *always* be large enough. (Shrunken woollen socks can be very bad for the feet.) It is often a good plan to get shoes on the large size, and then put one or two comfortable inner soles in, to be removed as the child grows.

The toddler has his feet very wide apart, for the sake of balance, and the foot arches do not develop at first. If later on the feet "go over" on the inside, and the instep appears to touch the floor when the child is standing barefoot, then it will be necessary to do foot and ankle exercises (and it may be desirable to have the shoes temporarily blocked up on the inside) and so strengthen the muscles that hold the correct position.

Cot and Pram

These should always be big enough, and capable of preventing the child from falling out. Straps in a pram are necessary from about four months to be on the safe side.

The pram hood should be kept down, except when going for a walk in wet weather. (See p. 83 on Fresh Air.)

Children up to the age of three to four years need to have part of their afternoon walk in a pram. A small push chair is invaluable. To be on their feet all the afternoon as well as all the morning is too great a strain for most children.

Playpen and Nursery

A playpen is indispensable for the busy mother, and it is a good place to put the baby in for part of his kicking time right from about four months, so that he gets used to being there. The mother can then use the pen for short periods, as necessary, up to about fifteen months. If she does not begin to use it until the baby is an active crawler, he will loathe it; but if accustomed to it early, and if the mother does not keep him imprisoned in it for long periods at a stretch, he will accept being put in it for short periods as a matter of course.

Few people have nurseries in the old sense of the word nowadays, but whether the child is to play, when indoors, in his bedroom or in the family living room, he needs a good accessible cupboard in which to keep his things, and preferably some corner of the room which is really his own private niche.

Toys

Toys play quite a large part in the child's environment. An excess of toys does not make for happiness, but children need something to love and play with. If they do not have official toys they will create their own. Nowadays, in spite of the shortages, many children still have more toys than they know what to do with, and after the first thrill of something new, prefer their old favourites.

As far as soft toys go, the tendency seems to be for all children to have one tattered favourite who goes to bed and everywhere else with them. One small girl, who for years insisted on having a round dozen of her assorted family in bed with her every night because she loved them all, still had one special favourite called Baby Bingo, and it was no good expecting her to settle if Baby Bingo had got mislaid in the *mêlée*. These affections of children for their toys should be respected.

Children like best the toys that they can use over and over again, and on which they can exercise their imagination. Elaborate shops or theatres seem to have less charm than the same ideas created by the children out of sticks and stones, so it is wise to avoid a surfeit of things that dwarf the child's imagination.

The basic nursery favourites in the toy line would appear to be:

Teddy bears; dolls; prams and cots; some of the Montessori types of toys. Engines and trucks (not on lines for tinies); small motor cars and aeroplanes. Crayons and poster paints. Bricks. Dolls' house. Meccano and trains for older children. Sewing things for girls. (A sewing basket filled with sizeable pieces of pretty materials is often preferable to the ready-made sets for sewing and embroidery. The child likes to plan and cut things out herself.) Picture and story books. If possible something to climb up, or exercise on even indoors, such as a horizontal bar fixable in a doorway, or a rope.

Since parents love to give their children little odd presents, it is most useful to have some toy that lends itself to continual expansion.

For girls an empty dolls' house is ideal. Two or three orange boxes fixed together, and a door affixed by a handyman, with either real windows cut in it or windows painted on the front, may give more scope than many more elaborate ready-made

houses, and additional pieces of furniture or tiny dolls for it make a perennial joy.

Small boys can have a garage or aerodrome for expansion in the same way, or later on Meccano, trains or carpentry make a similar basis.

Destructiveness of toys is undesirable in a child if done repeatedly for its own sake, but the passion to take things to pieces is quite different. It is a perfectly natural urge, and while many toys nowadays allow for it, those that do not may suffer from it, to the parents' distress.

House and Garden

The whole house is full of absorbingly fascinating things to the toddler, and it is his nature to reach for and pick up everything. He can soon be taught not to pull books out on to the floor, but his curiosity is right and inexhaustible, so that precious ornaments and similar treasures should be put away for a time or be placed beyond the reach of experimenting fingers.

Toddlers love to "help" their mothers in jobs about the house, particularly cooking in the kitchen, and it is splendid educationally to encourage them to do so, even though it does take up extra precious time. Later on, the mother will be partially repaid, when they really can help, and take it as a matter of course to do a few household jobs regularly.

Children are definitely not conducive to a beautiful garden, but even so, the whole place need not look like a shambles. However small the garden, part of it should be sacred to flowers or vegetables, and the children should have their own section, which should, however, be a sunny part. In it there should be, if possible:

- (1) Sand pit, with a few old saucepans or pie dishes and one or two wooden spoons.
- (2) Something to climb up, such as a part of an old ladder fixed securely, or some stout boxes.
- (3) A truck or wheelbarrow for pushing things about in.
- (4) Water (with discretion).

A little water, even in the winter, makes the sand pit infinitely more fun, even if the children do get a bit wet.

- (5) Space to run about on the grass and play ball games is also very desirable, but this may have to be done in a park if the garden is small.

SLEEP

Children need a lot of sleep, and very often they do not get enough. After a busy, happy and energetic day they should fall asleep almost immediately after they are tucked up in bed.

Individual variations will, of course, occur, but roughly sleeping times should be as follows:

TABLE OF SLEEP

AGE	NIGHT	DAY	APPROX. TOTAL
6 months	11½ hours	5-7 hours	18
1 year	13 ,,	2½-3 ,,	16
2 ,,	12-13 ,,	1½-2 ,,	14
3 ,,	12 ,,	1-1½ ,,	13
4 ,,	12 ,,	1 hour's rest	12
5 ,,	12 ,,	½-1 ,, ,,	12

From the very earliest days the child should be left to go to sleep by himself. Rocking the cradle in the baby days may set a precedent that is very exhausting to the mother later on. Some nights the toddler will not be ready to go straight off to sleep, but if so, he should realize from the beginning that bedtime is bedtime, and that after the final story and drink he must settle down and not expect further fun and games. Odd times, of course, he will call for the extra drink, or to use the pot and so on, but these should be the exceptions. The mother who has to return *time after time every night* has slipped up in her training somewhere. The child may need a night-light (*see "Fears"*, p. 106). For preference, a child should sleep in a room by himself, with the door open so that his mother can hear him if he wakes in the night.

Broken Nights

Disturbed and broken sleep is a sure sign that all is not quite right, either physically or emotionally, and every effort should be made to discover and eradicate the cause: *e.g.*, a year-old baby that wakes in the middle of the night, and laughs and talks to himself, is probably over-stimulated in the daytime, very likely by his food, especially if given meat or meat juices; so all aspects of his day should be overhauled. If he wakes up crying

or with bad dreams, he may be suffering from indigestion or from some subconscious anxieties or feelings of insecurity.

Broken nights are very exhausting for the mother and bad for the baby, even if he can make up some of his sleep in the daytime. When a child habitually wakes up in the night, it may be wisest, as a temporary measure, to put his cot into his mother's room, close beside her bed but between her bed and a wide open window. Then when the child *begins* to wake up, the mother, sleeping with one ear cocked, can at once put out her hand and give the baby a gentle pat and a word of comfort, and so usually settle him off to sleep again before he has fully roused himself up, and without getting out of bed herself.

A small baby may need to be given a drink of water and have his napkin changed and be turned over, but the older baby may only need to become conscious of his mother's presence, while still half asleep, and to settle off to sleep again.

When through the phase of wakefulness—and it should be only a phase—the baby can go back to his own room once more.

Cot Harness

A baby who insists on getting up in his cot after he has been put to bed may need to wear some cot harness for a short period. Such harness must aim at preventing the child from getting up, while giving him as much freedom as possible to turn over.

A wide belt, about 4 in. wide, of soft webbing or old linen, with four buttons down the front and with wide straps over the shoulders, can be used. This should have two slots at the back, one above the other (a strip of tape), through which two long strips of webbing about $1\frac{1}{2}$ in. wide are passed. When the child is put to bed these straps can be tied, not too tightly, under the mattress. If properly adjusted, this should give the child some modicum of freedom while preventing him from sitting or standing up in his cot. He should not be tucked up so tightly he cannot move.

EXERCISE

Healthy children give themselves an immense amount of exercise, and toys that cater for this are excellent (*e.g.*, climbing frame, horizontal bar, climbing rope, skipping rope, football, etc.). Even so, it is quite a good thing to encourage the habit of doing a few bending and stretching exercises every morning, followed by deep breathing and a brisk rub all over the body with a wet loofah or a piece of rough towelling.



"Healthy children give themselves an immense amount of exercise."
(John at the age of 19 months.)

If this once becomes a regular routine, it is good for the health and development of the toddler, and it is an invaluable habit to have acquired to carry on through schooldays and adolescence, and all through life. The exercises help to keep the body trim and supple, the deep breathing develops the chest and is one of the best possible insurances against colds, and the skin friction keeps this organ active and functioning properly and so reacts favourably on the whole system.

Babies should be given ample opportunities for periods of free kicking from the early days, and from six months they need a lot. Rolling and crawling about on the floor, kicking against their mother's hands, pulling on their arms, and so on, are all excellent, and though the baby loves to exercise himself, he also enormously enjoys the more ambitious exercises he does with his mother's help when she is playing with him.

For the toddler it is grand fun to do the "daily dozen" with Daddy, if he is in the habit of doing exercises himself and will make a game of them with his children. They should not, however, be forced or ever allowed to become a bugbear to the child, or an occasion for mother or father demonstrating the streak of sadism that exists somewhere even in the best of parents, under the impression that it is "good" for the child and do them even under duress.

Babies who suffer from abnormalities, either slight or severe, of either physical or mental origin, can be helped enormously, and often brought to perfect normality, by properly devised exercises. Great work on these lines has been done by Mrs. Dane, of Holland Park, London.

Safety Precautions

When arranging the child's physical environment, the need for freedom to experiment and explore has to be catered for, while at the same time unnecessary dangers have to be guarded against. Preventable accidents sometimes happen because mothers have failed to realize that conditions that were perfectly safe for a four-months-old-baby may no longer be safe when he is five or six months old, and conditions that were safe at nine months are no longer safe at fifteen.

For this reason, promotion from a cradle to a drop-sided cot should be made well before the baby can pull himself up and risk upsetting himself out of the cradle, and safety straps should be put on as a routine when the baby is in his pram, from five months, and also as soon as he sits up in a high chair.

Prams should have brakes, and should also always be so placed that they cannot tip over, however active the baby is.

All fires and hot plates, and boiling kettles and saucepans, need to be protected by a fixed fireguard, preferably with a top as well as sides, if they are part of the baby's environment. Stairs may well have a gate at the top which the small toddler cannot open, though some mothers prefer to rely on teaching the child how to go carefully up and down the stairs from crawling days, in case a gate were to be left open.

Fears (*see p. 106*)

Faults in general care and in the selection of the physical environment can produce serious fears in the child's psychological make-up. These should not be lightly dismissed, and are dealt with in the chapter on spiritual environment.

CHAPTER VI

THE CHILD AND HIS ENVIRONMENT

SPIRITUAL AND EMOTIONAL ENVIRONMENT

THE basic needs of all children for happiness are fundamentally the same as for adults, though the emphasis varies according to age.

Briefly, these needs might be said to be:

- (1) To be loved and wanted, and to love other people.
- (2) To have work to do and enjoy doing it, and to be able to do it reasonably well.
- (3) To have the ability to live amicably in a community.
- (4) Eventually to adjust himself to the Infinite.

For the small child the first one is of outstanding importance, and with it goes a great need for security. This aspect is supplied at first by the home, principally by the mother, and the child should feel this love is behind him all his life. The need for satisfying work and the ability to live in a community are, later on, mainly supplied by the school; but the foundations for them are laid in the home, and the satisfying effect of "work" should not be overlooked in the mother's arrangements of her toddler's routine, to whom "helping" in the house and garden jobs is a real joy, besides being good character training.

The adjustment to the Infinite comes later still and goes on all through life, though the child often has a deep natural sense of mysticism and religion which should not lightly be tampered with or destroyed.

Just as it is the parents' responsibility to provide the child with the right physical environment, so it is their responsibility to provide the right spiritual environment. It is often easy to see deficiencies in the physical environment of poorer sections of the community, but spiritual deficiencies may pass unnoticed, and these can occur, and often do occur, more acutely in the homes of the well-to-do than in those homes where there is little money but lots of love.

Joint Responsibility of Father with Mother

This is a joint responsibility which neither father nor mother can achieve really satisfactorily singlehanded. The child's need



" 'Helping' in the house and garden is a real joy " (Merril at the age of $5\frac{1}{2}$ years)

of a father is very great, even if he appears to be mainly dependent on his mother. All training and discipline should be mutually planned and consistently carried out, and there should never be any appeal to either for a repeal of a decision which the other parent has made.

For this reason decisions, and particularly prohibitions to older children, should not be casually made or irresponsibly given.

With a boy, the father's attitude to his mother is all-important, and will influence the boy's own conduct when himself a married man in years to come. At first the boy is largely dependent on his mother, but after about seven to eight years he tends to grow away from her and to make his father his ideal. If the father helps as a matter of course with getting the coals, chopping sticks and washing up, so will the son. If he does not, the boy will not want to either.

The girl usually "discovers" her father rather later, and again he can affect her emotional life for good or ill very considerably. The better husband and father he is, the more easily and naturally will she approach marriage and parenthood.

The bigger the part the father can take in looking after the baby and training him and playing with him from the earliest days, the better it is for the whole family. A certain possessive-

ness on the mother's part is natural, but she should be on her guard against it, and should whenever possible include the father in the family circle, even when he is not there, by keeping things "to show Daddy," or planning surprises for Daddy. Daddy should never be a sort of domestic policeman, to whom misdemeanours are to be reported, nor should he be just a supplier of sweets, presents and treats outside the normal routine and discipline, but someone to whom both mother and children look up to and love. Most men enjoy being good fathers if given the chance by their wives, for parenthood is a partnership between men and women just as marriage is.

The first essential of any child's spiritual environment is that it should be a loving one. The baby should feel that he is loved and wanted right from the moment he is born. Poor material conditions including even actual neglect but with plenty of genuine affection all the same, provide a better environment for a child's happy development than do luxurious material conditions which are short of affection, or where there are serious disagreements between the parents, even if they both adore the child. Children need love just as much as they need food, air and sunshine; they need to see it in their mother's eyes, to hear it in her voice and feel it in her hands. They learn through love, and their mother's love is both their teacher and their foundation stone of security.

The need of small children for their mother's companionship to help them to grow and develop in a well-balanced and normal way, has been clearly demonstrated in tracing the histories of delinquent children. Only too frequently has it been found that children who have become delinquent were separated a good deal from their mothers in their early years between the ages of one and five. This is a serious side to the policy of mothers of small children going out to work unless it is absolutely essential.

Parents have a duty not only to each other but particularly to their children to make a success of their marriage, for broken and unhappy marriages are a major cause of juvenile delinquency. A happy marriage is not a thing that one gets ready-made at the altar. It is like a garment that is being slowly "made to measure" during the years of marriage.

There are some perfect, and many near-perfect marriages, but there are neither perfect nor near-perfect people, and this must be allowed for in happy married life. Two quite ordinary and imperfect people can, if they set out to do it, make a more

than ordinarily happy marriage for each other, approaching perfection, but it takes time and mutual effort. It is these happy marriages that make the best emotional and spiritual environment for children.

The Family

The family is the basic social unit, and it should give the child a background of love and security, and the first lesson in living amicably in a group of people.

To be a member of a happy family widens a child's interests, but to a certain extent it also restricts the child's behaviour to the needs and demands of the rest of the family. The family is at the same time a widening and a restraining influence in the child's life.

Two parents with just an only child can scarcely be called a "family" from the child's point of view. However devoted the parents are to each other and to the child, the child's environment is just a single child-parent relationship, and is not a child-child one, and every effort should be made to have three or more children. This may not be possible in many cases, but it is worth bearing in mind as a desirable-sized family.

Apart from the actual good being a member of a family does a child, there is an immense amount of fun that only a family life of several children can bring.

Again, if a child behaves in a way of which the other children disapprove, he will soon learn from them that anti-social behaviour brings its own disadvantages. The child in the happy home has strong bonds of affection between himself and his parents and between himself and the other children, but his life is also conditioned by the fact that there are other bonds and responsibilities between the parents and the other children.

Other Adults

Friends and relatives are usually very transient influences in a toddler's day, but visitors should be discouraged from over-stimulating the child, especially after tea, near bedtime, and from picking him up or kissing him. If the child and his parents, however, are actually living with grandparents or other relations, the impact of a number of adults on the toddler is more acute, and not always beneficial. If conceivably possible, the child and his parents should have their own rooms in the house, but in any case, only the parents should train the child, and the other adults, however much they may itch to help, should restrain themselves.

Any disapproval or criticism of the parents by the other adults is bad for the child, and any form of dual control, or of grandparents being more indulgent than the parents or *vice versa*, accentuates the difficulties of training and management.

The young mother needs to have a rest away from the children at times, and a helping hand from grandmother or aunt is invaluable, to let the mother have a half-day off now and again. Such help is quite different from correction and suggestions, either of the children or of the mother's methods.

Other Children

All children, whatever their sex or class, need other children to play with. Even babies like to meet other babies, though they do not play together. Toddlers who are too small for any organized play together benefit by playing beside or near some other toddler, but they need supervision to prevent accidents. Other children can sometimes prove a worry to a mother, if she fears her own child is not developing as well as they are. It is almost always a mistake to measure one's own child by other children, and then to worry, as all children develop at different rates, and are more forward and more backward than their playmates in different ways and at different stages. For example, one child might have only one or two teeth at a year but be walking, when another child will have a dozen teeth but still be crawling. Mothers should not expect everything.

If a child has brothers or sisters a great problem is automatically solved, but where there is an only child every effort must be made to provide some child playmate for him in the years before he starts school. Children learn easily and naturally how to get on with other people from each other in a way that cannot be taught them by adults, and unless they have been foolishly brought up they enjoy each other's company and get on well together. The earlier such contacts are made the better.

Children and Animals

Children also have a natural love of animals, and whenever possible they should have pets. It is part of the parents' job to help the children to look after the pets and to ensure that they are not neglected and are properly cared for, and that the children, however small, realize that they must treat them gently and not hurt them. Probably a good-tempered mongrel dog is the ideal animal pet for children, but this is not always possible.



"Children have a natural love of animals. They should however realise that they must treat them gently (June, at the age of $8\frac{1}{2}$ years)

School and Schoolteachers

Once the child reaches school age his schoolfellows and schoolteachers are a large part of his environment. Too much care in the initial selection of the school, if there is a choice of schools, cannot be taken; but once the school has been chosen, criticisms of it and of the teachers in front of the child are undesirable. The child must be free to talk about what happens, and feel he can bring home its "horror stories" of the "Do you know what Miss —— did to-day?" type, and still feel safe and secure and confident in the rightness of his school.

Children get most of their mental food from their school and their own incidental reading, but where both parents themselves enjoy good books and appreciate literature they can do a great deal to foster these joys in their children.

Saying nursery rhymes to children should lead on naturally to reading aloud, first little simple stories, and later on some of the famous masterpieces of literature.

Later still, play readings by the parents, children, and their friends can be a great source of entertainment.

This custom of "making their own fun" is in every way desirable, even though the wireless and the pictures have rather superseded homely efforts at amateur entertainments. We are apt to laugh at our Victorian ancestors for their "musical evenings", but they did at least make their own personal contributions, and were not dependent on professional canned performances.

Charades, community singing and paper and pencil games such as "Consequences" are all genuine assets to family life, bringing both fun and indirect education in their wake. Dressing up is a perennial joy to children of all ages and gives wonderful opportunities for the exercise of both ingenuity and imagination.

It is not a very easy job to provide the right emotional environment, because we ourselves, as mothers, are largely "it"; and we ourselves are just imperfect human beings, often overtired and too busy to realize that our impatience and irritability are part of the child's environment and will inevitably have some effect in moulding his character. Fortunately, children are incredibly forgiving and generous to us, if they feel and know beyond all possible doubt that they are loved and wanted by us.

Another difficulty is that it is necessary to keep changing the environment as the baby grows. Most of us are generally some weeks or months, or even years, behindhand when it comes to realizing what stage our baby has reached and what advances in his environment should really have been made.

Can children be loved too much? The answer must be "no," but not everything that goes by the name of love is necessarily the genuine article, and love can be, and very often is, demonstrated in foolish and harmful ways. Some things are called "mother love" that really are not love at all, but a brand of self glorification or of selfishness or even emotional self-indulgence on the mother's part.

Over-indulgence and absence of training are not love, and over-helpfulness, however well meant, can be very frustrating to a child. The mother has to discipline her own love, so that she provides the right environment for her child but does not hamper or confine him or stunt his real development by any possessiveness. While loving him with all her heart and soul, she has to be continually standing back and letting him teach himself by his own mistakes to stand on his own feet and to be more and more independent of her.

Within these limitations there are endless ways of expressing love, such as inviting another child in to play and for tea, when perhaps the mother herself would have preferred to have gone to the pictures and taken her child with her. Over-concentration on keeping the child's clothes clean and the house spotless are less desirable expressions of love and care than are playing games, reading aloud and studying the wonders of plant and animal life with a child.

Sometimes mothers acquire a martyr complex of the "after all I have done for you" type. They may feel it is a justifiable idea, but it cannot be dignified by the name of love.

A Free Gift—Not a Debt

Love to our children is a free gift, asking no return, but bringing its own rewards in our daily happiness in living with our children, by our memories accumulating down the years and in our delight in our children's progress to maturity. One cannot balance the books in love's ledger, for if the love is happy then it is all profit, and if the love is not happy it may seem to be nearly all loss. There can be no debits in mother love, each generation gives, as a free gift, its love to its own children in their turn. Happy children do, of course, give an enormous amount of love to their parents, but this again is a gift and not a debt. Such gifts from children to their parents are immensely precious, but their very value is intensified by the fact that they are *given* and not just rendered as a duty.

Too Little Love

Children brought up in institutions, on the other hand, usually get much too little love, and they can suffer from emotional malnutrition. Without plenty of love children feel very lost and insecure indeed. If a child gets too little love in his home the seeds of future trouble may easily be sown. All too often delinquent children and juvenile offenders come from unsatisfactory

homes, or homes where the child has not had the love shown which he needs to give him a secure and happy background. This emotional malnutrition can show itself in a variety of apparently unrelated ways, such as stealing, bed-wetting, tantrums, lying or thumb-sucking. The cure is love and sympathetic understanding and gradual help to normality.

FEARS

Children's fears can be very devastating, and should not be lightly dismissed by unsympathetic adults. They may be accentuated by errors of management or errors in the physical environment of the child, and the child needs genuine help to outgrow these. The more common fears are:

- (1) Fear of the dark.
- (2) Fear of being left alone.
- (3) Fear of losing their mother.
- (4) Fear of sudden noises.
- (5) Fear of the vacuum cleaner.
- (6) Fear of falling.
- (7) Fear of the water running out of the bath.
- (8) Fear of dogs (usually induced at some stage by loud barking).
- (9) Fear of strangers and of the unknown generally.

Most of these are just phases which the child will automatically outgrow if treated considerately. It is not possible to overcome the fear by treating the toddler roughly, though he can often be educated out of fear gradually. Fear of the dark should be helped by a nightlight, or by leaving the door open with a light on the landing. Fear of the vacuum cleaner can be eased by using it in another room and letting the toddler switch it off and on a long way away. Small babies need to be held firmly, so that they feel steady and secure. Fear of dogs can be slowly overcome by a pet in the family, and so on. Fears of being left alone and of losing the mother can be very awkward at times, but they are usually only temporary phases, and the fact that the mother goes in and out of rooms, but *does* come back again, gradually reduces the fears through experience. Many babies hate being left outside shops in their prams, but shops full of prams are inconvenient. "By-bye, back soon" is a phrase which the baby will very soon understand if the mother says it when she pops out of a room for a minute or two and then comes back again, and this formula can then be used on going into shops,

etc.; but the time she is in the shop should not be over-long at first.

The fear of strangers is a usual phase some time between nine months and two years, but in its acute form it is only a phase and the child will gradually grow out of it of his own accord. Comments of the "she's pretending to be shy" variety are best not made as they only make the child self-conscious, and substitute a conscious withdrawal for a perfectly normal timidity and reserve. The adult habit of commenting on children, in their presence, about their appearance, growth, or habits, as though the children were deaf or half-witted, is very undesirable, and can lead to fears and worries and misapprehensions in the child's mind. A certain fear of the unknown may persist with some children throughout life, while to other types the unknown is actively stimulating.

Apart from the more usual fears, all sorts of fears can be "built-in" to a child by association. If, for instance, he is frightened by a loud noise when petting a rabbit, he may afterwards show fear of rabbits. Sudden loud noises (dog barking, thunder, etc.) can be the source of quite separate fears which are in themselves inexplicable to the mother.

Children and Religion

There is a divine spark in everyone, and even the littlest child feels the need to love and look up to something bigger and better than himself. At first the mother and her love symbolize this need, and a little child will derive joy and happiness from simple little prayers and Bible stories with his mother at bedtime, if she is sincere about them. The divine spark will develop as the child grows, if neither forced nor stunted or starved, but it is not easy to know best how to foster it, or what will tend to dim or retard its growth. It may be that some mothers will only realize the things they feel they might have done to help their children to desire religion after the best opportunities seem to have passed. Though mistakes are often made in this sphere, both through good intentions and from the lack of them, there is fortunately a Power for good in the world which is able to reach the young people and help them, in spite of their parents' failures and insufficiencies.

Parents who are spiritually assured will know how best to introduce God to their own children in their lives and actions; other parents, being uncertain in their own minds, may

still wish to give their children the sheet anchor of faith that they see in other people's religion, if only they knew how to provide it. The answer is, of course, that no one can provide for anyone else a religion or a philosophy of life ready made. Each individual makes his own, or fails to make it, as the case may be, as he goes through life. However, whether they have a religious life of their own or not, parents can help their children a little to acquire one, or can hinder them a lot.

"Man does not live by bread alone." Lack of any adequate spiritual life, not necessarily orthodox religion, leads to spiritual malnutrition.

Parents cannot give their children anything that they have not got themselves, but there are a great many spiritual joys which are not, in the conventional or technical term, "religion", yet which are akin to it and which can lead the child on to deeper spiritual appreciation, and prevent the child from suffering from complete spiritual malnutrition. Religion is not a static state of affairs, but is the life of the soul, which is going on all through life.

Parents can help their children to find their own treasures by showing them any they really value themselves. For instance, if they appreciate music, art, the beauties of nature and love the simple things, they can build these things into the family life. Parents can show them the immense beauty of the starry heavens and the wonders of nature; the growth of the flower from the seed, and the care wild birds and animals give their young, and can tell them life stories of great men and women and read suitable stories from the Bible, leading them on to a delight in good books and beautiful pictures or pieces of sculpture.

Parents can also do a great deal to show their children that money and material possessions are not the right standards by which to measure happiness or success, and can see that they, together with their parents, often make their own fun, instead of relying on some outside entertainment; they can try to give the children a pride in craftsmanship, in creating things themselves, and to value goodness, truth and beauty for their own sakes. Integrity, courage, chastity and charity are virtues of character that can be encouraged without any reference to religious teachings as such.

All these things are good in themselves and will help the children to a good life. Even if the parents have no belief in

God, such teaching will help the children to be good citizens, and will be a basis on which they can build their own deeper personal religion and belief in God later on. At adolescence there is a natural growth and upsurging of the spirit, often with a desire to reach a personal God. This spiritual growth balances and helps to control the sexual developments of adolescence, which often create difficulties for them.

Excess of religious teaching, as sometimes given in earlier days, can easily lead to spiritual indigestion, and so produce an adolescent aversion to religion. The routine of religion practised without the spirit does more harm than good. The small child may enjoy going to church with Mummy, but the ten-year-old may hate it, and an excess of religious teaching and religious observance at this age, enforced by deeply religious parents with the best of intentions, may set up an antagonism in the child, and so interfere with the normal religious growth of adolescence, when it is most natural and most needed.

Because there tends to be much *Fear* in religious teaching, and the last thing any child should have implanted in it is fear, care is needed in the Bible readings and prayers that children hear. There are many beautiful Bible stories, but there are also stories of a cruel and avenging God that are unsuitable for children. The loving, creative, happy side of religion is helpful for them, but the Prayer Book and very many hymns accentuate fear and sin.

Psychologically, it seems wrong for a child to say, "We are miserable sinners, and there is no health in us," which is untrue for them, nor should their dreamless sleep be disturbed by the frightening prayer "... defend us from the perils and dangers of this night". The whole concept of Heaven and Hell as it tends to be conveyed to the child's impressionable mind (that is, of marvellous rewards for being good and appalling punishments for being bad) is undesirable for children; God then tends to be made into a sort of gigantic bogey, always looking on and criticizing and condemning. To a sensitive and imaginative child it is still fatally easy to acquire this idea of God from certain Bible readings and prayers in church, and every effort should be made to avoid it.

In summary, if parents assume, for the children's benefit, religious views which they do not really hold, they are only doing them a disservice. The children will feel the insincerity in their parents' voices, and so however good the views themselves may

be, any insincerity will prove a barrier to the child's acceptance of them. People who want their children to be truthful and honest, must not tell them lies, or act lies, even with good intentions. On the other hand, people whose religion is a vital factor in their own lives are inevitably anxious that their children, too, should have this priceless gift, and they may make the mistake of trying to give their children too much teaching at too early an age, and so defeat their own object by interfering with the soul's own slow but natural progress through unconscious childhood to adolescence and maturity. It is a difficult but important subject, needing much thought and prayer.

Faith

Their greatest strength is in the practical effects on their own lives and actions of their faith. The children will absorb this unconsciously, and the best in it will have a lasting influence for good on their characters, and will prove the best possible basis from which the child's own adult faith may eventually grow.

CHAPTER VII

GENERAL MANAGEMENT AND TRAINING

Value of Discipline

THERE has been a modern craze for subjecting children to no sort of discipline or fixed routine, in case the child should be repressed and feel frustrated and so in latter life develop "complexes". This floating about in a moral void does not make the child free; neither does it give him self-respect or respect for his parents. Discipline may have been overdone by some Victorian parents, and there has been the inevitable reaction to this; but if a home is to run smoothly there must be some ordered routine and some discipline of the individual for the good of the family as a whole, though the child should hardly be aware that he is being trained, nor should there be battles between a mother and her children.

Many modern children suffer from a lack of training, and this lack of training may sometimes be due to laziness on the mother's part rather than faulty theories, or a misconception of how to express her love.

The object of training children must be twofold:

- (a) to make them happy and well-balanced little individuals, both sturdy and adaptable, with sound characters.
- (b) to enable them to fit in, and to live happily, first in the small community of their own family and later in the larger communities of school and the world.

Some Victorian parents tried to fit the child into the community of the home by a degree of severity that could be successful only at the expense of the child's own individual happiness, but the modern "free" child is neither really happy himself nor does he fit happily into the home or community. It is hard to find a child brought up under free discipline who is either as happy himself, or who spreads as much happiness around him in his home, as do children brought up from the earliest days with reasonable standards of behavior and a reasonable number of automatic good habits and consideration for others.

Mother love should provide the right environment in which the child can grow and develop happily at his own pace within a framework of a few simple duties and sensible routine.

Training must, in the long run, make the children independent adult human beings who no longer rely on their parents. This is usually harder for the mother to act up to than the father, but unless she can do this she has not completed her job. Some sons never completely grow up because of the clinging hands of their mothers; for if a boy remains too much attached to, and dependent on, his mother, he can never adjust himself to the world as a whole, and particularly he is unlikely to make a satisfactory marriage, as he will unconsciously look for a mother-substitute instead of for a wife.

Mothers have to learn that they can only

"Take, by leaving,
Hold, by letting go."

Once the children have achieved their own adult independence, a new type of love and friendship can develop between them and their parents, and will develop if the relationships in childhood have been right.

Suggestions for Principles, Including Possible Rules

The actual rules in any family are an individual matter, but the main principles on which rules should be framed are universal.

The object of rules is to enable the family to function happily as a unit, without one person's convenience or enjoyment dominating the rest, or upsetting other members. *The fewer actual rules there are the better, but what rules there are should be kept without any argument or fuss.*

- (1) TO BEGIN EARLY, and to begin right, when training a child is essential, and so is to begin in the way you mean to go on. Elementary training should start as soon as the baby is born, with regularity over meals and sleep, and this progresses gradually with growth. It is impossible to over-emphasize the importance of early training in babyhood in facilitating the ease of training in the toddler stage. Neglect of this early training may mean that a perfectly adorable baby develops into an exhausting and disobedient toddler, instead of into a happy and co-operative one. By the age of eight or nine months (or even earlier) the baby can perfectly well understand what "no" means. (This knowledge should never be shown off by mothers as a sort of parlour trick, nor should the baby be encouraged to do things at one stage of his life which

will be undesirable, and so must be checked, when he is older and stronger—*e.g.*, pulling his mother's hair or smacking her face.)

- (2) **ABSOLUTE CONSISTENCY** from one day to the next, and by all the adults in control at different times, is essential. If a child is allowed to do things one day and scolded for them the next, he cannot learn how to behave satisfactorily and is liable frequently to "try things on." The mother should not relax rules because she is feeling indulgent or overtired or bored with enforcing them. With an older child some rules that are made for "every day" can be relaxed on special occasions, such as a special late bedtime, but the child then understands that the rule exists all right but is just being relaxed.
- (3) **FAVOURITISM.** Both parents may find they need to train themselves to try to love all their children equally, for though equality of love does not come automatically, it is a serious handicap to a child if he feels some other child is more loved, wanted, or appreciated than himself. It is a feeling which can easily complicate his training and management out of all proportion to its apparent seriousness. Love cannot, of course, be produced to order, and human nature being what it is, a parent may easily find herself more specially drawn to one of her children, but where this is the case every conceivable effort must be made not to show it.

While most parents are anxious to be scrupulously fair, and always give presents and treats with the strictest impartiality, they do not always realize that they may be demonstrating their preference for one child in some more intangible way. A sensitive child may feel another child is more loved than herself by the tone of the parent's voice, or by the interest the parent takes in what the child says and does, or by which child gets the first kiss on greeting. Girls probably suffer more often than boys in this way, as boys are often their mothers' unconscious favourites, but where there are two girls it can happen too.

If several children give their mother Christmas presents, all the presents need to be used, however unsuitable they may be. Even a gorgeous Woolworth

brooch or ring can be worn with joy, and if the mother feels she cannot appear in public in a Woolworth brooch she can always put it on to start off with, and wear it to show the giver, and later transfer it to her handbag.

If she has a photograph of one child on show, she should have similar photographs of the others, and so on.

It is surprisingly easy to slip up on this question of absolute fairness, from the child's point of view, as is shown by the following illustration. Mrs. Frankenburg, author of "Commonsense in the Nursery" and a pioneer of good mothercraft, has a family story against herself. She always tried to be entirely fair with her family, but one day one of her little boys at the age of six sighed, and said rather wistfully, "It's sometimes eldest first and sometimes youngest first, but it never seems to be middle one first."

- (4) **JUSTICE** on the mother's part is also essential, both between one child and the next and in apportioning blame for his own misdemeanours. A genuine accident, such as spilling the milk or knocking over an ornament or even breaking a window, should be treated as such, and blame to the child should not be given in proportion to the mother's irritation or the expense of the damage done, but only in relationship to any real disobedience or excessive carelessness on the child's part. Accidents will happen to the best of us, and the toddler who is "helping" to dry up the tea things and accidentally drops a saucer receives quite enough shock by seeing the thing break without his mother scolding him as well.
- (5) **THE DESIRE FOR APPROVAL**, natural to all children, their aptitude in copying the mother and their suggestibility should be the main ways by which training is achieved.
- (6) **REWARDS AND PUNISHMENTS** are then seldom needed, if at all.

Neither should need to feature largely in any well-managed family, though occasionally rewards are a useful help in achieving the desired kind of behaviour. Punishments, if given, should be given at once, and should take the form of trying to put right whatever has been done wrong. It is very much better for a child to

try to make some restitution (that is reasonably within his powers) for some fault than that he should feel his mother is punishing him as a sort of revenge for what he has done wrong.

- (7) **THREATS**—that is, saying one will do something in certain circumstances and then not doing it, or saying some specific thing will happen if a child does something one does not want him to do when one knows that really that thing will not happen—are in all cases deplorable, and should have no place at all in any home.
- (8) **SMACKING** is a perennial topic of debate, but it should be quite unnecessary, and it really is rather degrading, to slap a child. The mother should remember both the child's intense sensitiveness and desire to please her, and also his imitativeness, and should realize, before she starts the habit of slapping, that very often she is not teaching him how to behave, she is just teaching him how to slap. He will then almost certainly apply this teaching when he wants to impress his will on some other child, and will slap it, copying his mother in this undesirable act as he has learnt to copy her in other more desirable ways. If, however, the mother *begins* by slapping her *baby*, she may find she has to go on slapping him when he is a toddler, and even when a boy of nine or ten, to get him to obey her. It is wisest never to start it.
- (9) **GOOD MANNERS** in a child should come more as a result of suggestion and copying the good manners of mother and father, both to himself and to each other, rather than as a series of "do's" and "don'ts." For example, the mother should always say "please" and "thank you" when she wants a thing from her child if she expects this courtesy from him to herself and other people.

Good manners must in any case be a matter of gradual growth and cannot be expected to be perfect at first.

Good table manners, particularly, should not be overstressed, but should grow gradually with experience; but wildness and indiscipline at meals should always be gently controlled and held in check.

- (10) **GETTING FUN AT SOMEONE ELSE'S EXPENSE** should be discouraged from the earliest days. The child

who is allowed to knock down another child's castle to amuse himself is acquiring a totally wrong attitude as regards his responsibilities and duties in life, as well as making himself unpopular. These acts may easily occur in the nursery, but they should not be regarded as inevitable, and should be discouraged and circumvented as much as possible. There is plenty of fun to be had without getting it by spoiling other people's fun, and teasing, bullying and cruelty generally are very undesirable traits in either child or adult.

- (11) **THE NATURAL DESTRUCTIVENESS** of the children should be given some suitable means of expression. They can soon learn that books are not for tearing up but that old newspapers are; walls (except perhaps certain special sections of them) are not for drawing on, but large sheets of paper are; some things can be hammered and others cannot, etc.
- (12) **DANGEROUS IMPLEMENTS**, like sharp knives or scissors, and dangerous things, like the fire and boiling kettles, should be explained to them when very young and the dangers made quite clear, even though every precaution is taken to prevent a child from having an accident with them. As soon as a child's dexterity permits it (and this is usually long before the mother expects it to be) he should be shown how to use scissors and knives correctly, and taught to keep sharp or spiky things away from his own and other people's faces and eyes.
- (13) **A SIMPLE ROUTINE** and the early training in good habits (see Chapter VIII) is of tremendous value in attaining the necessary standard of discipline with the minimum of friction.
- (14) **FREEDOM TO EXPERIMENT** should be given to the child, and he should be allowed to try to do all sorts of possible and impossible things within the limits of a framework of routine, and bearing in mind the rights and needs of other people. "Freedom" that expresses itself in destructiveness and in interfering with other people, and in making a general nuisance of himself, is not freedom but licence, and is the last thing to make either the child himself or the people round him happy. If the child is to have the benefits of liberty, he must also learn to understand the need for rules, for liberty is

dependent upon law, even though *law for its own sake* is antagonistic to liberty.

- (15) ALWAYS TO TELL THE TRUTH is an important ideal for a child to acquire, and the mother should always tell her child the truth, both in answer to his questions and in her dealings with him and other people, otherwise she cannot expect the child to do so. On the other hand, the mother should not regard his fancies and his imaginary world and the things he says about them to be "lies". A vivid imagination is a normal part of childhood and needs exercise, and the child does not always clearly distinguish between things that have happened, things he would like to happen and things he has imagined. Usually he expects his mother to understand and, if necessary, to enter into the fantasy, and not to trip him up with a demand to distinguish between his facts and his fancies.

It is exceedingly difficult to get children to give an accurate account of anything at all once you start cross-questioning them, even if you are not blaming them. As soon as a feeling of censure or displeasure does come in, then a small child is seldom able to answer questions without contradicting himself and appearing to tell lies. The child rapidly gets so muddled that he loses the ability to say what is true and what is not, and any resulting mis-statements are not his fault.

A Serial Saga

A useful part of any family's equipment is a sort of serial Saga—that is, a serial story made up by the father or the mother about the child or children.

Small children adore stories that are *told* to them, rather than read, especially stories in which they can identify themselves with the hero, so that a story about themselves is doubly delightful.

The Saga can be partly pure nonsense—such as a small boy driving a steam roller over his house and rolling it out flat, like a picture, and then having to stop and get out his bicycle pump and pump it back into shape again—and partly it can be used to convey information. If there is a new baby due, a story about its growth and about the mother going away for a week or two to have it and then bringing it home with her, and longing to get back to her toddler, can be told; or if the child happens to have

been adopted, a story about a lonely Mummy adopting a lovely little baby is an ideal way of broaching the subject.

The Saga is also useful for training purposes. The hero or heroine can get into mischief and have accidents and so on, but the narrator should ensure that the child is always loved and wanted by both father and mother, and the hero should try to put his accidents right. He should be brave and courageous, and always tell the truth, be kind to animals and people weaker than himself, and so on, but there should be no pointing of morals. This is unnecessary and can easily spoil the story.

The idea is just to give the child a nice picture of himself, one up to which he will subconsciously try to live. The quite impossible flights of fancy that make up the nonsense part will not interfere with this other side.

The children may make up things for themselves that are not scientifically accurate, but this is quite a different matter from being *told* things that are not true, and does not block additional knowledge later.

One small boy whose aunt was expecting a baby was taken for a walk by another aunt. While they were out he said to her confidentially, "You won't mind, Auntie, will you, if I don't run or jump very much, but you see, I've got a baby growing in my tummy too."

Facts of Life

Mixed in naturally with the rest of the early training, the toddler needs to absorb what are called the "facts of life". His own body is of absorbing interest to the infant and toddler, and sooner or later, as self-consciousness grows, the toddler will ask where he, himself, or some other baby came from, or who made him. Lack of the truth can induce both fears and bad habits.

The way this first question is answered or not answered or sidetracked may condition the child's whole outlook on sex. There should be no hesitation or embarrassment. The mother should just say that Mummy and Daddy made the baby in Mummy's tummy. There may be a few supplementary questions but the tiny child's interest is soon satisfied. Here is an example of an actual conversation:

GIRL OF 2½ (watching her baby sister of six months being bathed).

Who made that Baby June?

MOTHER. Mummy and Daddy and God made her in Mummy's tummy.

GIRL. Oh. Who made Mummy?

MOTHER. Her Mummy and Daddy and God made her in her Mummy's tummy.

GIRL. Oh. Who made Daddy?

MOTHER. His Mummy and Daddy and God made him in his Mummy's tummy.

GIRL. Oh. (Looking round bathroom) Who made Daddy's dressing-gown?

MOTHER. That was made in a factory.

And so the conversation ended. But a foundation of fact was laid, and the way left open for any future question to come in a simple and unselfconscious atmosphere. The introduction of God at this stage may or may not be advisable. It probably depends on the mother, and whether she is prepared to answer the question "What did God do?"

Failure to give elementary sex instructions early is fraught with dangers. Both boys and girls should have a simple but accurate outline of where they came from before they go to their first school (at the age of four or five). Otherwise it is quite impossible to guarantee that their *first* knowledge will be true and wholesome, and if the first knowledge is in any way undesirable it may be difficult to get things really straight, psychologically, again.

At the same time care must be taken not to over-do the giving of sex information. Natural reticence and decencies must be maintained, and any excessive parental concentration on the subject can produce a most undesirable state of morbidity and precociousness, which can be a thoroughly unhealthy basis both for adolescence and for a balanced maturity.

Jealousy of the New Baby

The arrival of a new baby is an excellent opportunity for giving such information. It is often also an occasion for jealousy and it is desirable to do all one can to minimize this. The older child must not be allowed to feel he has lost caste by the new arrival, or that he is getting less love, or that he is less important in any way than he was before.

The helplessness of the tiny baby and the fact that he gets a lot of nursing in his mother's arms may seem to the first baby to prove the new baby is more beloved. Breast feeding is occasionally particularly heartbreaking to the older child, but it

will not help to try to keep him in ignorance of the procedure. It is wisest to explain that he too was originally fed like that, but can now have proper meals with Mummy. It should not be necessary, as mothers occasionally do, to start to feed the toddler from the breast again (to try to be scrupulously fair!) as this is by way of being a regression to babyhood. The road to maturity should be made the more attractive course, by giving the older child jobs and privileges he will be proud of, and enjoy being allowed to do, often helping in the care of the new baby.

Little extra demonstrations of love, and a little time by himself with Mummy without the new baby, especially just before bedtime, are really all that should be needed.

It may be a good plan, if single-handed, to give the toddler his "mothering time" and bath him and put him to bed before bathing and feeding the baby. An active toddler is often ready for bed soon after 5 p.m. and can be settled by 5.30 p.m., before the mother starts to do the baby. It is a mistake to keep a tired toddler up just because he is the eldest, and one has to feed the baby at 6 p.m., if an adjustment like putting the toddler to bed first will ease the congestion.

Good management in the nursery, as in any business concern, must include knowing when the routine and regulations need adjusting to meet a particular case and when it is wisest to maintain conformity.

Induced "Naughtiness"

Occasionally it can be the mother's own fault when her child screams or fusses or loses his temper. This may be the case if the mother strains her child's patience or endurance to breaking point, or if her actions frustrate or irritate the child to the point of frenzy.

Sometimes mothers are quite unconscious of how exasperating they can be to their little children, especially in their apparently interminable conversations with other people when the child is eagerly waiting for his mother's help or attention, and sometimes they consciously keep an agitated child waiting for their attention under the impression that it is "good for the child" to learn to control himself and wait. Up to a point this is true, and the child has to learn to take his turn, and not burst into grown-up conversations whenever he wants to; but mothers have to adjust matters to the child's youth and temperament, and a good mother knows almost by instinct when the child should be kept waiting

a little and when his need is really urgent and must be dealt with at once.

In any case, no good lesson is learnt if the mother exasperates her child to the point of scenes and hysteria. If she does this, she is attempting to give the child lessons in patience beyond his capacity at that particular age, and is only making her child less co-operative for future occasions rather than more so.

A child will also show signs of exasperation which the mother may call "naughtiness" if, when he is laboriously trying to master some job, such as putting on his shoes or tying the laces, she just takes over the job herself and finishes it quickly. It may give her some satisfaction to have the job finished and out of the way, but to be frustrated in the middle of his own laborious efforts at "craftsmanship", however primitive, can easily irritate the child so much that he screams at his mother and hits or bites her.

This behaviour would be perfectly understandable in the above circumstances, and can only be classed as "naughtiness induced by the mothers". There are endless variations of this sort of thing on both the mother's and the child's part, and mothers would do well to remind themselves that to tantalize their child in any way, whether by word or deed or by failure to give the right word, is not training but teasing, and is a reflection on themselves and on the great profession of motherhood.

Pocket Money

It is a good policy to give children pocket money from a very early age, say four or five years, as they can learn a great deal both from spending and from saving it. The amount given must vary with the child's age and the parents financial position, probably beginning with 3d. a week, and progressing to 6d. as he learns and grows. (The old "Saturday Penny" is probably too little even for a toddler nowadays.)

For the child to learn the value of money, the pocket money should be a definite amount given with scrupulous regularity, and the issue not confused with irregular "grants" whenever he wants to buy something. He should be allowed to spend his own money in his own way, however he likes, but he should be taught to "keep accounts" as soon as he can count, and understand figures. In this way he will learn the value of "saving up".

If an older child wants to buy more things than the regular pocket money will run to, he can well be encouraged to "earn"

a little more by *extra* helpful jobs such as weeding, or polishing the silver, or any other job for the benefit of the community that he does not normally do as his share of helping with the household work. All work should not always be paid for, since some unattractive routine jobs, such as washing up, should automatically be shared by the family as a whole.

Extra jobs to earn money should be well paid for by the mother and father. This money should be the child's exclusive property, but the parents need to guard against killing the child's incentive to work either for love, or to earn extra pocket money, by expecting too much help from the child, most of whose time should really be spent in play.

CLEANLINESS, TRAINING OF CHILDREN AND RHYTHM OF DIGESTION

All through the animal kingdom there is a regular rhythm with regard to food. Every living creature takes in food, digests and assimilates the required parts of it and then ejects the unwanted remains. Even in the simplest forms of animal life, the single-celled amoeba, this rhythm takes place. With wild animals the rhythm appears to be seldom disturbed, but if the processes of digestion and evacuation do become out of order, then it is usual for the animal to abstain from its normal food and it possibly nibbles some wild herbs. Primitive races use herbs for curative purposes, and also a form of enema on occasion, but compared with the "highly civilized" races their need for laxatives in any form is very small.

Constipation is one of the most undesirable accompaniments of civilization, and has led to an enormous and highly lucrative industry in the manufacture of laxatives. It is, however, an entirely unnecessary complaint. Many mothers become worried at any sign of constipation in their children, but the trouble can usually be easily put right by correct food without resort to any laxatives.

"Constipation" in Breast-fed Babies

Breast-fed babies may not always have a motion every day and yet may not be constipated in the true sense of the word. Breast milk is such a perfect food for them that there is often little waste, and provided the stool is soft and of the right colour when passed, there is no need to worry. If the stool is passed only every two or three days it may indicate the need for a

slightly larger feed, as the baby may be near the borderline of not getting enough food. If the stool is formed or at all hard, the baby needs more water to drink. This assumes, of course, that the mother's own diet is a balanced one, mainly fresh and dried fruits, vegetables, salads, dairy produce and wholewheat bread.

As the baby grows older he himself will start taking fruit and vegetable juices and purées, and the regulation of these foods will easily control the motions. Here we come to the question of "training". It certainly is a great help to a busy mother if her baby will pass his stool into the pot instead of into his napkin. There is no harm in holding him on the pot for perhaps half a minute at the end of a feed (provided he is not an easily sick baby) or before a feed and hoping for the best. Any favourable reaction is really just a reflex action, and is not the same as an older child's conscious act of will. The mother can express her approval when the act occurs, but she should not express disapproval when the stool is passed in the napkin, and even with a toddler, if the stool is passed in the pants instead of the chamber, she should be exceedingly chary of expressing annoyance or disapproval.

This may appear an unusual attitude, but we have to realize that we are dealing with the baby mind. Disapproval of soiled napkins or knickers may seem to the baby to be disapproval of the actual *act of evacuation*, since he has no conception of the difficulties of soap rationing or the problems of washing.

Overemphasis on getting a baby or, even more, a toddler, "clean" at an early age may actually lay the foundation of constipation in later childhood by upsetting the child's natural rhythm of evacuation. The very last thing we want to do is to "educate" the toddler to ignore or deny the natural impulse to evacuate regularly, and scolding and disapproval for soiled knickers may do just that.

Internal cleanliness is more important than external cleanliness, and while it is desirable for the toddler to learn to use the chamber regularly (and he should sit on it after each meal for a minute or so), we do not want to make such a fetish of it as to sacrifice any child to the exigencies of the laundry. It is necessary to train the child to be "clean" and to use his chamber correctly eventually, but it is important that the baby should not be trained to be *internally dirty* in the process. Control of the bodily function of evacuation comes with time and practice, but denial of the desire to evacuate is one of the early causes of constipation, and if

the mother is too severe and strict in her disapproval of "accidents" and soiled knickers, she may just be teaching her baby to ignore or deny the calls of Nature when they come, if he can, rather than be teaching him to ask for his chamber and be a "clean" baby.

On the other hand, if the child fails to have a regular evacuation the mother should not make a fuss. Neither failure to evacuate nor evacuating in the napkin should produce a sense of guilt in the baby's or toddler's mind. If the child is constipated and fails to have a motion, it is almost certainly caused by errors in feeding—that is, the mother's own errors. If the child's diet is right, then the rhythm of eating, assimilating and evacuation follows easily and naturally and the child will evacuate twice or even three times a day, usually after meals, without any trouble.

With toddlers, as well as having the right food (natural unspoiled food), the child should have a comfortable little seat, the right size for him, with his feet on the floor. To balance him on a grown-up lavatory seat, with his legs dangling, does not give him a proper sense of security. Some people advocate strapping the child on to his chamber until a stool has been passed, but there is the definite drawback here that the child feels impotent and frustrated at the use of force, and unpleasant emotions are associated with what should be a perfectly straightforward and normal piece of routine. If proper control of the excretory processes is to be gained as soon as possible, one does not want to have any emotional disturbance associated with these processes.

Expectation of Cleanliness

The conscious control of the excretory organs is a matter of gradual growth. Reflex actions are often obtained in the early months, and mothers proudly claim that they never have a dirty nappy when their babies are only about eight months old. Such babies may appear to have a complete relapse when about a year old and refuse to use their pot at all, to the intense annoyance of their mothers.

They are, however, merely expressing the fact that they are growing up, and claiming the right to control their own bodies. Provided early training has not been excessive, they will soon grow into clean habits. In general, the routine of the times for using the pot should be maintained even if it is unused, but occasionally it will be found wisest to give up the pot entirely for a

few days if a toddler is antagonistic, to allow his antagonism to fade. When restarting to use the pot, the child's co-operation should be gained by allowing him to fetch the pot and empty it.

As an average guide, a baby should be clean from about eighteen months, and dry in the daytime from about this age (with the exception of the daytime sleep), and dry at night from about two-and-a-half to 3 years. Any serious illness, operation, or psychological upset will throw the baby back in this phase of his development.

It is often a help to leave the napkins off when the baby is playing about in the daytime, from about fourteen months, and risk accidents, as the association of napkins often encourages getting them wet rather than using the pot. With goodwill every mother can devise some way in which her own baby can ask her for the pot, long before he can talk properly, and at this age a small pot can, for the sake of speed, very well be kept in some convenient place downstairs. At first the baby will only "ask" when it is too late to do much about it, but he learns by experience, and the more the mother helps, and the less she is put out by accidents, the more quickly will control be gained.

Time Factor for Schoolchildren

In the case of schoolchildren the time factor often comes in. The child has to leave the house at a certain time to catch the train or bus, or to walk or cycle to school, and unless breakfast has been ready in good time, and the child up and ready for it in time, then he may have such a rush to catch the bus that there is not adequate time for the necessary evacuation. Once the child gets to school it is unlikely that he will bother, there is so much else to do, and so there is a retention of waste material. This, if persisted in day after day, produces a very undesirable state of lazy bowel, and consequently of constipation.

From this it is clear that the household's routine must be such that there is no scramble over breakfast. However hard it is to get up in the morning, it is necessary (especially in winter, when the tendency is to stay in bed a little later) to get up early enough for the children to set out in good time for school without having had to rush over breakfast and the morning evacuation.

CHAPTER VIII

THE CHILD AND HIS HABITS

Value of Habits

IN the previous chapters habits have been mentioned more than once, and it seems desirable to give some more special attention to them here.

In the case of both good and bad actions, the more often they are repeated, the more firmly do they become "set", until they may definitely become a habit. That is why one of the ways of training a child is to encourage the constant repetition and regular carrying out of good habits, and to discourage and try to avoid the repetition of any actions tending to develop into bad habits.

Good Habits

The value of a good habit, once it has become established, is enormous, for it removes much of the sense of effort or possible feelings of friction that that particular act might otherwise engender. For instance, if a child *always* goes to rest in the morning, there is no fuss or worry about it; but if the child sometimes goes to rest and sometimes does not, then the child may make a fuss any day he does not want a rest, when his mother wants him to have one, and such fusses are liable to be repeated at more and more frequent intervals.

To form a good habit most easily it should be:

- (a) begun when the child is young,
- (b) carried out with regularity.

Habits are a useful aid both to the mother, in helping to ensure the smooth running of the home, and to the child, in helping to form a framework to his life, so that he "knows where he is." At the same time it is worth while remembering that the object of good habits is to make life easier and simpler for the child than it otherwise might be, and the attempt to attain a number of good habits should not degenerate into a sort of daily disciplinary obstacle race. Habits, by the very conditions of their growth, cannot be acquired all at once. They are helpful and sensible actions, which, by being done over and over and over again under the same conditions, eventually become a sort of second nature, so that it is almost easier to do them than to fail to carry them out.

Token Habits

Though every effort should be made to carry out habits regularly, it may, with a small child, sometimes be desirable just to carry out a "token" habit rather than have a scene. If the child, for instance, objects to having his teeth washed one night, it need not result in a full-pitched battle. It will be enough to get the toothbrush, wet it, and just touch, or even only pretend to touch the front teeth. Honour is satisfied on both sides, for the habit was not forgotten, yet the baby's objection was not too ruthlessly overruled, and his "face was saved", a point always to be remembered. Unless some previous toothbrushing had proved painful, or there was some similar cause for the baby's objection, it is unlikely that the objection would be sustained on future nights; whereas if the mother had a fight with the child over it, the fight might easily be repeated night after night.

The following Habits are Worth Acquiring

- (1) A fairly regular time-table for the day:
 - (a) Regular times for meals and sitting in his chair.
 - (b) Regular times for getting up, having a rest and going to bed.
 - (c) Regular times for companionship, play and walk with his mother, and regular short periods in the day for occupying himself—*e.g.*, after "helping" to clear up breakfast, etc., he plays by himself in the garden for at least half an hour.
- (2) A regular routine for hygiene:
 - (a) Regular times for using the pot.
 - (b) Washing the hands before meals and face and hands afterwards.
 - (c) Morning and evening brushing the teeth.
 - (d) Daily deep breathing, exercises and air bath.
 - (e) Regular nightly bath, with time to have it without the mother being in a hurry.
- (3) Good behaviour over food.
 - (a) Never any "pieces" between meals, except drinks of water, diluted fruit juice, vegetable broth or ripe raw fruit such as an apple as "elevenses".
 - (b) The habit of masticating food properly. This must be begun early, and the regular use of fingers of baked bread or rusks from six months, if not before, is invaluable. If such foods to chew are not given

at this age the best chance of establishing the habit of thorough mastication is often lost, and it may be difficult to reawaken the early instinct to bite and chew.

- (c) The habit of eating green vegetables and salads.
- (d) The habit of remaining in his chair to the end of the meal and not getting down in the middle.
- (e) The acquirement of simple table manners. These have to be progressive according to the child's age.
- (4) Saying "please" and "thank you."
- (5) The habit of laughing at bumps and tumbles, or when "things" go wrong in other ways.
- (6) The habit of concentration. This habit is often present naturally, but is damaged by parents themselves giving too much "help" or interference with what the child is doing.
- (7) The habit of always doing things for himself if he can. This leads to the valuable quality of independence.
- (8) The habit of tidiness. The child should always put some of his own toys away. Though help with this is needed for years, the mother should not do it all by herself after the child has gone to bed.

Acquisition of Good Habits

The most effective ways of getting a child to co-operate willingly in carrying out the actions which it is desired should become good habits is by:

- (a) using the child's desire for approval;
- (b) using his suggestibility;
- (c) using his imitativeness—that is, his desire to copy what he sees other people doing or saying.

Approval for doing the right thing is a more effective way of getting it done again than are repeated admonitions to do it, or correction for doing it wrongly, and the suggestibility of the little child means that he will often readily carry out something that is gently suggested to him when a command would quite likely inspire the idea of opposition.

Also, since the child watches the people around him, and loves to copy the things they do, or try to copy them, it is wise to use this imitativeness for useful purposes. Both the tone of the mother's voice and the things she says, to other people as well as to the child himself, are relevant, so that the child has



" The child watches people around him, and loves to copy the things they do " (John, with his father, at the age of 4½ years)

something good and attractive to copy. This is not always easy for the mother, but it is worth striving for, and habits of speaking politely and gently, if acquired in the nursery, have a strong chance of surviving even beyond the rough-and-tumble of school life, though they may apparently be entirely lost temporarily. The intense imitateness of children also has its dangers, for they will copy undesirable actions as well as desirable ones. Hence the previously mentioned danger that if a mother slaps her child, using pain and force to establish her will, the child will copy this habit too.

Saying "please" and "thank you" are most attractive habits for children to acquire, particularly valuable at mealtimes, but they cannot be expected to learn these and similar little courtesies unless the adults with whom they live give similar courtesies to them and to each other.

Acquisition of Bad Habits

As well as helping children to acquire good habits, it is desirable to try to help them to avoid acquiring bad habits. This is a little difficult, partly because it is easy for parents to defeat their own object and strengthen, instead of weaken, some bad habit by their own over-intense concern with it, and partly because

bad habits, when more than a passing phase, often have their roots in some psychological or emotional disturbance that can easily be overlooked or appear to be quite irrelevant.

A bad habit should be looked upon as a warning that all is not well with the child's environment and emotional life, just as disease is regarded as a warning that all is not well with the child's physical life.

With the exception of the last four, most of the actions in the following list are carried out by the majority of children at one stage or another, to a greater or lesser degree, and in very many cases the action is not done continuously enough or intensively enough for the child to be said to be seriously guilty of having formed that action as a bad habit. This is why the mother must always keep a sense of proportion, and not feel that her child is necessarily suffering from an established bad habit just because he *sometimes* does the particular action in question.

The following are the more common bad habits:

1. Thumb-sucking.
2. Masturbation.
3. Nail-biting and dirt-eating
4. Bed-wetting.
5. Blinking or twitching
6. Stammering.
7. Tearfulness
8. Negativism.
9. Showing off.
10. Temper tantrums
11. Lying.
12. Stealing.
13. Bad language.

Predisposing Causes

A difficult environment, which gives a child a feeling of insecurity or lack of balance, may result in apparently quite irrelevant bad habits. Dissension between the parents, or dual and conflicting controls by mother and grandmother, or the sudden and unheralded arrival of a new baby, with consequent upsetting of the toddler's normal world, or the strain of a continually changing environment caused by repeatedly moving house, or the restraints of living in furnished rooms, or the sense of inferiority and inadequacy brought about by being set too high a standard of behaviour for the child's age, with its con-

tinual criticisms and corrections, are all conditions capable of crystallizing what would otherwise have been a temporary and passing act into a firmly established bad habit. Over-pressure at school or a too stimulating life generally may also produce some undesirable habit, as a warning signal that all is not well.

Sometimes thumb-sucking or bed-wetting or a similar bad habit appears as the aftermath of an illness or, still more commonly, an operation. This is a regression to an earlier phase in the child's development, and may easily just be a temporary one; but sometimes it may be the beginning of a more permanent bad habit.

Though undesirable actions often begin to develop into bad habits as the result of some physical upset or psychological fault in the child's environment, once they have become established they may persist, even after the initial inciting cause has changed or faded away. However, the same type of treatment can still be applied.

Attempts to Cure Bad Habits

It is not desirable to attempt to cure a child of a bad habit by continually admonishing and scolding or ridiculing him and calling him a "baby." Though such methods come naturally to exasperated parents and are frequently used, their ultimate effect is usually to do more harm than good, by over-concentrating the child's attention on the problem without getting at the root causes, which are often buried in the child's subconscious mind.

Cure should be along the lines of

(a) indirect treatment

and (b) direct treatment

and only after methods of indirect treatment have been fully applied should direct treatment be added if necessary.

Indirect Treatment

Indirect treatment is pretty much the same for *all* bad habits, and should always be put into operation first. This section should therefore be carefully read before the section on the individual bad habits which follows it.

(a) The mother should go very carefully through the child's environment and see what predisposing cause or causes there are there that can give the child feelings of insecurity or worry or inferiority or unhappiness of any sort, and should then set out to eradicate them, or, if this is impossible, then to compensate for them.

(b) She should also be ready to look for some possible cause in herself as a parent and in her general management of the child and his training, either in the past or the present.

(c) She should make sure that she gives her child a great deal of love and of sympathetic interest in his activities, and she should not hide her love, but let the child be constantly aware that he himself is wanted and much beloved. She should do this with her voice and her smiling expression, and in playing with the child, rather than in any over-expression of her love by kissing and fondling it.

(d) She should avoid scolding the child for the bad habit or expressing criticism and disapproval of the act she wants to eliminate.

(e) She should overhaul the child's diet and make sure that there are no serious deficiencies in it, particularly of those foods likely to lead to shortages of the vitamin B group or of vitamin C or of mineral salts such as calcium.

(f) She should make sure that the child has adequate sleep and fresh air and, according to his age, other children to play with, and that he has adequate sex information.

Direct Treatment

Only when these general indirect measures have been carried out should the mother begin to consider direct measures. These should take the form of:

(a) *Encouragement*, the mother talking the trouble over with the child, and explaining that lots of children suffer from this particular bad habit when they are small but grow out of it as they get older, and that she is *quite* sure her child will soon grow out of it too, even if he does have occasional relapses.

(b) *Rewards* are useful in some cases, as the idea of the prospective award, however tiny—often just a "token" award—may sink down into the subconscious, and so check the reflex action that has become a bad habit.

(c) *Constructive help* should always be given where possible, such as a nice manicure set or piano lessons for a little girl who bites her nails.

(d) *Reminders* to stop doing the habit cannot be entirely ruled out, and if the child himself is anxious to be reminded, and if all other possible direct and indirect methods are being used, kindly reminders can be added.

Prevention Better than Cure

In the case of bad habits even more than in most things it is the case that prevention is better than cure, and not only better but usually infinitely easier. This can be done both by the formation of good habits and by the mother being on the look-out, but not too anxiously or intensively, for the earlier stages of the formation of bad habits when things first begin to go wrong. The longer the duration of a habit, the more firmly it usually is set, and the more difficult it will be to overcome it.

Direct Treatment of Specific Bad Habits

(Read first the previous section under "Indirect Treatment", p. 131.)

THUMB-SUCKING may originally be just a reflex action of a very small baby, but it may also be a sign of an unsatisfied desire for the sucking of the breast or for more food, or to allay indigestion. All babies should be breast fed, and all possible care taken to avoid indigestion or underfeeding. It is probably best to discourage much thumb-sucking by tucking the baby up firmly and cosily and keeping the little fists away from the mouth when he is going off to sleep.

Thumb-sucking in a toddler is usually a compensation for something but it looks most unattractive. When all indirect methods are in full working order, and *if* the child is anxious to cure himself, as older children sometimes are, a deterrent in the form of bitter aloes may be rubbed on the finger-tips, or gloves may be worn, but if such deterrents are used without the child's co-operation a severe sense of frustration may be set up.

A reward for going to sleep for a fortnight while keeping the thumb out of the mouth can often be effective with, say, a three-year-old, and the child can be gently reminded when half asleep and the thumb withdrawn if it has found its way in. A toy to cuddle, too, will sometimes help to keep the hands otherwise occupied than in the mouth. If thumb-sucking does not become established as a compensating habit before a year it rarely makes its first appearance later, except possibly in cases of ill-health.

MASTURBATION. Care is needed in checking thumb-sucking, for since this is a physical act which gives the child physical comfort and compensation for something he is lacking, that sucking may, if erroneously checked, be transferred to masturbation, which is also a physical act, giving a sense of physical

comfort and compensation. Lack of a sense of security and of love can be a cause of masturbation. It is the unhappy or discouraged or lonely child who tends most easily to become a victim of the habit of masturbation, so indirect treatment is essential.

Apart from this, the inevitable curiosity of a child will at some time or other lead him to explore his own body. This "exploring" can hardly be termed masturbation, but excessive parental disapproval of such curiosity may tend to concentrate the child's attention on it unduly, and so turn a passing curiosity into a forbidden pleasure. It is inaeesthetic and inelegant to see a child indulging in it, but it has not the terribly serious mental or moral implications that many parents fear. Plenty of active and energetic play and creative work for the fingers as they get older, and going to bed happy and healthily tired, help to circumvent the habit. If a child is kept in bed inactive long after he wakes, or goes to bed without having had enough exercise, or is sent to bed in the daytime in disgrace, then fruitful conditions for starting the habit are created.

Sleeping suits and knickers and particularly little boys' trousers must never be tight, or they may set up a feeling of irritation leading to masturbation, and any possible physical trouble such as over-acid urine or a tight foreskin should be observed and corrected. There is no evidence to show that circumcision of boy babies prevents masturbation in childhood or adolescence, and there would appear to be no case at all in this temperate climate, and under modern conditions of hygiene, for carrying out this operation as a routine practice, but only if it is absolutely essential owing to a tight foreskin.

A toy to cuddle and the habit of folding the hands round the toy when going to sleep, or doubling them up together, helps to avoid the start of the habit.

Only rarely does the habit develop to such an extent that the child produces, and desires to produce, an orgasm. If frequently indulged in, this can prove tiring to the child, and it also diverts his interests and energies from more interesting and constructive and progressive pursuits. The mental conflict and feelings of guilt and self-reproach brought about by ill-advised parental attempts to suppress the habit often do more damage than the habit itself. In such cases expert help with the individual case is almost certainly needed, both for the child and possibly for the parents as well.

NAIL-BITING AND DIRT-EATING are usually the signs of some nervousness or feeling of inadequacy and inferiority, and all indirect measures should be used. Both may also be the result of mineral deficiencies, hence the importance of "whole" foods. After applying indirect treatment and reforming the diet a direct reminder in the form of some bitter aloes on the nails may be used, with the consent and co-operation of the child, of course, and a reward may be offered for unbiten nails at the end of each week—any unbiten finger to get a prize of, say, 3d.

BED-WETTING may originate as a regression to babyhood, either as the result of some physical upset, such as a period of illness or an operation, or it may be a demonstration of jealousy (often quite subconscious) of a new baby, or it may be the result of over-intensive training, and attempts to get the baby "dry" too young. The control of the bladder is a subconscious action which has to be gradually acquired, and most children cannot be expected to be dry in the daytime before about fifteen months or at night until two-and-a-half to three years old. If older children wet their beds when asleep, parents should remember that the matter really is beyond the child's conscious control and that they must help to create the necessary subconscious control. Scoldings and so on only make matters worse.

It will help the child if his mother obviously appreciates his difficulties, and prepares the bed with a rubber sheet and draw-sheet, as for an invalid, so that to wet it is not too serious a domestic upset. The child should also have a flashlamp under his pillow and a chamber under the bed, so that he can readily attend to himself. If he has an accident he should help the mother to wash out the pyjamas and drawsheet, and she should be cheerfully confident that her child will soon outgrow the habit, which she should explain other children have also had, and outgrown, and not show irritation at the extra work.

A reward for a "dry" bed in the morning is a useful help. It can just take the form of a chart above the bed (or in a drawer) on which the child marks a red star for a dry bed. Seven red stars might earn some little present.

It is seldom a good idea to restrict the child's fluid in the daytime, but it is probably wisest not to give a large drink of water just before the child is settling off to sleep. Lifting the child at 10 p.m. to pass water may be carried on until varying ages. Some children do not need it after about five, others need it up to about seven years.

BLINKING OR TWITCHINGS are a nervous trick (sometimes simply picked up from some other child by copying them), but they usually denote considerable unrest in the child's general make-up and expert help may be needed to overcome these tricks.

STAMMERING is another manifestation of nervousness, sometimes brought on by the impatience of the adults in charge of the child, who will not wait while he tries to say what he wants to say. It is also brought on sometimes by making a child change from writing with his left hand to his right. If the indirect measures have all been adopted, it often helps the child if he learns to sing. Stammering seems to be more common among boys and men than among women. Every effort should be made to help a child to overcome this trouble, which is really perhaps more of an illness than a bad habit, but it is a great handicap to him if it persists through schooldays into adult life. Of course most small children stammer on occasions when very excited or very anxious to tell something quickly, when their thoughts come faster than their words, or even if frightened. No notice should be taken of these occasional manifestations, except to treat the child very calmly and gently, and the mother should show that she has plenty of time to listen to the child, however inconvenient it may actually be to do so.

TEARFULNESS over trifles, or a habit of dissolving into tears if things worry him or if his feeling are hurt, is a great handicap to a child in school life, and still more if it persists into adult life. This is partly a matter of temperament, but a child should not get things given to him just because he cries, nor should things be made too easy for him for fear he *will* cry, and every effort should be made to teach the child that he can control the impulse to tears if he continues to try to do so. Excessive sympathy is bad for children with a tendency to tearfulness.

NEGATIVISM is more often than not the result of faults in management on the part of the mother. It is easily produced by over-anxiety of the mother to get the child to conform to certain standards of behaviour, often at too early an age, and by excessively strict training generally. Many other bad habits may reflect criticism on the parents, too, but negativism is probably the clearest demonstration of errors in management, for the high-spirited child reacts, in self-protection, by refusing on principle to do everything he is asked or told to do. (See also "Refusal of food", p. 73.)

SHOWING OFF is a normal part of childhood, and the "look at me" phase is one through which all children go. It should, however, gradually work itself out in the early years if it is not to become a nuisance later on. This means that it should not be seriously repressed with the two to four-year-old, but as skills develop the child should get adequate satisfaction and recognition out of his own normal creative and athletic activities without specifically asking for it or trying to do things to attract notice. Much so-called "naughtiness" is really subconsciously a desire to be noticed. Children do so hate to be ignored.

TEMPER TANTRUMS are usually the child's protest against a life that he finds too unsatisfactory, and too much beyond his ability to "cope" with successfully, and so he has to fight something, possibly himself. Sometimes a child may fly into a temper because he wants to do something desperately badly, but he has not the technical skill or ability to control the materials with which he is working. In such a case it does not really help if the mother does the job *for* the child; all she can do is to offer to hold it while the child completes the job, or something like that. Much sympathy (unexpressed) and tact are needed when a child gets furious with his own ineptitude, but such children usually master both their difficulties and their temper in time. The child who expresses his temper by beating the floor or chair or whatever inanimate thing it may be that has annoyed him, may easily be expressing his feelings in an undesirable way he was unintentionally taught to do when tiny. Mothers sometimes try to divert a child's attention from crying after he has bumped himself by saying such things as "Smack the naughty chair for bumping Baby, then", but this is fundamentally faulty training. If a child exhibits a temper tantrum against some other child it is wisest to remove the offender to another room but not to lock the door. He (or she) can be gently told that he will be welcomed back again as soon as he will behave normally. Sometimes just hiding in a favourite corner or running behind a curtain "to find a smile" will be all that is necessary to give the child a chance to regain control of himself and at the same time save his face. Even when in a temper the child should feel (and will draw stability from the fact) that his mother knows what to do and is in control and has not also lost her temper herself.

Usually one talks of eminent people like Cabinet Ministers having to save their faces, but it is a point well worth remembering in the nursery. If a child, after some undesirable exhibition,

is helped to save his face, future training will be that much the easier.

Sometimes temper tantrums are simply a protest against life in general, and such children do not feel happy, loved and secure, as they always should, in their own home environment. Indirect treatment needs full and sympathetic application here.

LYING may be a child's desire to draw attention to himself owing to some unsatisfactory condition in his life. It is just another form of showing off, and it needs treating by indirect methods. If accidents or misdemeanours are treated with excessive severity, real lying—that is, a conscious knowledge of telling a direct untruth to try to evade punishment—may be started; but this is not a natural fault of character in the child, but an induced one, and the mother should check up on herself.

A child with a very vivid imagination may say things that are not true, and he may have difficulty in being quite sure in his own mind what is fact and what is fiction. If abruptly pulled up for "telling lies" he will almost certainly panic and be unable to say what is true and what is not, through a sense of fear. The mother should be able to enter into a child's fantasies and help with the imaginary side in his life, which is very valuable to him, without losing sight of the importance of truth in all essentials. As he grows up, fact and fiction, the real and the imaginary, sort themselves out in the child's life. The mother must herself have a high standard of truth and integrity in everything she says if she wants her child to develop this virtue.

STEALING can be a symbol of psychological upset. The child who steals things is not necessarily greedy or anxious to have the particular article he steals; he may be stealing because he does not feel loved. In a way he is trying to "steal love", and when a new baby has recently arrived unexpectedly, and without any preparation of the toddler's mind, the toddler may feel he is hopelessly superseded and may start to steal things, such as pennies from his mother's purse, as a sort of compensation.

Any such acts should be regarded as a symptom of psychological ill-health, and should be treated indirectly with love and sympathy. Very small children may take things simply because they have as yet no very clear idea of personal property, but it is surprising how readily they develop this with regard to their own property, and so can be taught to respect other peoples'.

BAD LANGUAGE in a child is obviously copied from some other person, either another child or an adult. It, again, is often

the result of a desire to be big and grown up and to show off. There is nothing actually wrong about it, but it is very ugly to hear a child swearing, and there are plenty of better ways in which he can show how fast he is growing up and how clever he is. Help should be given along these lines, and provided a child does not learn bad language in his own home, and provided his first efforts at swearing are not treated with shocked horror or punishments, it is not usually very difficult to teach a child to regard swear-words as an ugly and unattractive way of talking.

Over-emphasis here, of course, will easily make swear-words attractive simply because they are forbidden.

Patience

Finally, the keynote of the successful training and management of babies and children must be patience.

We cannot expect them to learn quickly, or even to remember the things they appear to have learned, without endless repetitions. As soon as we get cross with them we confuse the issue for them, for they at once become more concerned with the fact that *we are* cross than they can be with whatever it is that has *made* us cross.

Patience with our children's natural childish frailties in these days of hurry and stress is very difficult to achieve, especially for busy and over-worked young mothers, but it is such a supreme asset to happy training that it is a hundred times worth the effort of striving for it.

SHORT SYNOPSIS OF A CHILD'S PROGRESS FROM SIX MONTHS TO EIGHTEEN YEARS

MOST babies will not do all the following things at the same ages, but they may be expected to do some of them and to conform to the general pattern. If a baby does some one thing very early, he may easily do some other thing rather late, so the mother needs to keep a well-balanced outlook. Allowances must be made for considerable personal variations and idiosyncracies, but pronounced backwardness or pronounced overweight should call for specialized advice. Any severe illness will be liable to cause a psychological setback as well as a physical one.

At 6 months. The birth weight is doubled. (This usually means the baby weighs about 15 lb.) One tooth may be cut, or nearly cut. The baby should be properly established on a regular routine of play and exercise, meals, and sleep, and during play periods should both entertain himself happily and crow and laugh when alone, and also especially when talked to. Over-stimulation should be avoided, as the baby needs quiet and security to develop peacefully.

At 7-8 months. He enjoys holding things, or banging and rattling things and is "finding" his own fingers and toes. Beginning to sit up. Chews hard crusts.

At 9 months. Sits up and crawls about. Three or four teeth cut. Understands training in the form of "no" and "good baby". May omit one feed, 10 p.m. or 6 a.m. May try to stand up in cot or playpen. Makes lots of talking noises.

At 12 months. Weight about 21 lb. Six teeth cut. Stands with support. May even begin to walk. Says words. Learning a great deal, both by personal experiments and by imitating the mother. On three meals a day.

At 15 months. Walks alone. Eight to twelve teeth cut (first double teeth usually come before the four eye teeth). Learning to feed himself. Should be beginning to "help" in the house work. This not only keeps him happy and occupied, but it helps to begin the process of turning his interests away from himself and towards the wider community. He should be stepping forward psychologically, losing some of his baby self-centredness.

- At 18 months.** The "soft spot" in the head should be just about closed. Eye teeth being cut. Enjoys running, climbing, jumping. Repetition of acts. Nursery rhymes and jingles. Encouragement, rather than help, should be given when he is attempting to do things. "Do it myself" a good sign. Generally clean day and night, and "dry" in the daytime when not in cot or pram.
- At 2 years.** Weight about 27 lb. (boys tend to be slightly heavier than girls). Sixteen teeth cut. Repeats nursery rhymes. Talks well (this varies a great deal with different children, and with different members of the same family). Child should not be "fussed" about talking. Daily sleep before lunch.
- At 2-4 years.** Gains about 6 lb. a year, sometimes a little less. Boys still tend to be slightly heavier than girls. Four more back teeth cut (last of milk teeth). Growing independence and self-consciousness. Growing desire for power and so needs suitable recognition and outlets. Often a tendency to "show off". The "Look at me!" stage. Child is a combination of curiosity and destructiveness often trying to mother, but only a passing phase if she keeps her head. Continence of both bowels and bladder should be attained (occasional "accidents" if excited or ill may still occur). Should either still have rest before lunch, or early lunch and rest immediately afterwards (need not necessarily sleep). Needs the companionship of other children, but unobtrusive adult supervision may need to be at hand. Out-of-door play and contact with Nature and animals and growing things most desirable at this age. Singing games, percussion band or dancing classes all good towards the end of this period. Elementary knowledge of sex and how the creation of new life occurs and should be completed in a simple, unemotional and natural way.
- At 5 years.** Usually starts school. Mornings only preferable for some children. There may be some initial strain, and at first even three days a week may be enough. Influence of mother and dependence on her gradually decreases as influence of playfellows and teachers increases. Weight 40-45 lb.
- At 7-9 years.** First permanent teeth, the six year molars, being cut. Milk teeth may begin to be shed. First phase of childhood, the "Mother phase" (*i.e.* dependence on the mother)

for both boys and girls is ending, and must end if they are to develop into well-balanced adults.

Boys at 8-12 years. Milk teeth being shed and permanent teeth cut. Tending to be aggressive and noisy but not necessarily anti-social. The "Father phase", when boy begins to be more aware of his father and to copy him and look up to him and towards being grown up himself. Must grow away from the nursery and from dependence on his mother.

Girls at 9-15 years. Milk teeth being shed and permanent teeth cut. The school phase has followed the "Mother phase". Menstruation may start any time between twelve and fifteen years. Occasionally later. Often something of a hoyden.

Boys at 12-18 years. The school phase. School life and school-fellows and masters most important things in boy's life. Changes of puberty. Adolescent "growing pains" may be apparent on occasion. Growths of altruism and religious interests.

Girls at 15-18 years. Called the "Father phase", when girl begins to realize her father, and to turn to him. Interest in clothes and personal appearance grows enormously. Maternal restraint should be reduced to a minimum. A personal dress allowance is a great asset provided the girl will keep accounts and understand she must keep within the allowance. Growth of altruism and religious interests.

Adolescent Troubles

Adolescent physical troubles, such as acne or decaying teeth, appear to be negligible or even non-existent in children brought up from ante-natal days on the reformed diet previously outlined, and one would expect emotional disturbances also to be reduced to a minimum if all the organs of the body, including the ductless glands, are getting optimum nourishment from a clean and healthy blood stream.

After eighteen both boys and girls should be fairly adult in their outlook, and both are interested in the opposite sex, sub-consciously looking for a mate.

Girls differ from boys in having one fundamental instinct running through their lives right from the nursery. That is the maternal instinct. The paternal instinct in boys is only dormant, often not emerging until they are themselves a father; but a good and happy homelife helps both boys and girls enormously to develop into well-balanced adults and into good potential parents themselves, fit and able to carry on the human race.

CHAPTER IX

CHILDREN AND ILL-HEALTH

WHEN children have the right food and other essential raw materials for health, and a good environment, their mothers need have little fear of serious ill-health.

A sick child is always a pathetic sight, but when we suspect that a great proportion of the sickness in the world, and particularly of its children, is unnecessary, and more or less man-made, then the sick child becomes doubly pathetic.

When children get ill their parents are often told that they must have "picked up a germ", but this is only a very unsatisfactory answer. Parents would like to go a step further back and know *why* the child has picked up the germ, why one day, and not another. The more that is discovered about germs, bacteria and viruses, the more clear it becomes that they are always present, both inside and outside the human body, and the more difficult does it become to feel certain that these things are actually *the primary* cause of ill-health and disease. It seems there must be some unspecified controlling factors that condition the growth and lives of the bacteria, and that if we want to guarantee health to our children we must find out much more about these controlling factors and organize our lives accordingly. In the meantime, and without waiting for scientific experiments to prove things, we can all do our children an immense service by treating any manifestation of ill-health simply and naturally.

At present medical students are expected to learn endless different drugs and their combinations and the huge variety of symptoms of ill-health for which they are to be used.

The object of these medicines is to relieve, or suppress, the symptoms of disease. These attempts to relieve symptoms have proved so poor, in their aggregate effect, that in recent years a great deal of emphasis has been laid on injections, sera and inoculations instead, but the toll of disease still goes on.

If a child has a headache or a fever, the orthodox medical treatment is all too often to give a drug, such as aspirin, to "remove" the headache. Similarly, aspirin is given to bring the temperature down, or, more recently, M. & B. is used for this purpose.

It would be much more satisfactory theoretically, and has in numerous cases proved to be much more successful in practice, not to tackle the symptoms themselves, but to aim at removing the basic causes present in the body as a whole, which are simply manifesting themselves in certain symptoms. Suppression of its symptom cannot be regarded as curing any disease. If the headache or the fever is a danger sign flung out by the child's body to say that all is not well inside, and that repairs are needed or are in progress, these significant signs should not be summarily suppressed with aspirin, etc.

A Warning

If a man waves a red flag to warn traffic that the road is under repair, even the most hardened speed addict does not say the flag-waver should be removed or suppressed. The motorist realizes that the flag is a warning that all is not well with that piece of road, and the flag is not removed until the road is mended and safe again.

Similarly, it is rather foolish to take aspirin for a headache, when the cause of the headache, probably constipation or liverishness, or nerve or eyestrain, has not been removed. The suppression of the headache by aspirin merely gives a false sense of security, just as suppressing the man with the red flag would to the motorist.

The medical profession holds that each different form of ill-health is the result of some specific germ entering the body and attacking in some specific way. Treatment is designed to kill the invading germ, and neutralize the effects of its activities regardless of the possibility that in some cases these effects might be beneficial to the child's health.

On the other hand, it seems rather more probable that practically *all disease* comes from the same, or very similar, basic causes. Just as a great variety of different flowers all grow out of the same good soil, so might a great variety of different diseases all develop from the same basic adverse causes in the child's system. The manifestations of these causes may take a variety of different forms, such as coughs, colds, bronchitis, asthma, enlarged tonsils, bad teeth, boils, headaches, influenza, mumps, measles, rheumatism, and so on.

Five Known Causes of Ill-Health

There are at least five causes that can, and frequently do, produce ill-health in children, and it is only common sense to

remove these causes first before trying to "cure" the manifestations of them, even though these may not be the only causes.

The causes of ill health may work separately or together, and in each case they aggravate each other.

These five causes are

- (1) Wrong Food.
- (2) Lack of sunshine, sleep and fresh air.
- (3) Accidents or injuries, particularly to the spine.
- (4) Prenatal and hereditary influences.
- (5) Suppressive treatments of symptoms of ill-health.

(1) WRONG FOOD

The ordinary civilized diet is responsible for two fundamental causes of ill-health, in that it produces:—

- (1) Deficiencies
- (2) Excesses

The deficiencies are of mineral salts and vitamins (both known and unknown) and the excesses are of toxic waste materials.

These two factors together mean that the body frequently cannot help but accumulate more toxins and cell waste in, itself than are being eliminated through the four normal channels of elimination, the skin, lungs, kidneys and bowel. As a result of this accumulation of wastes, one or more various forms of ill health may appear.

- (1) The body may adapt itself to working with the slightly polluted blood stream available, but with consequent reduced efficiency and vitality. The intricate equilibrium and harmony of all the various functions of the body may be adjusted, to continue to work, even though their conditions are not ideal. In spite of the fact that such a body is not functioning at its maximum potential efficiency, the condition is considered to be quite satisfactory by most people, so long as there are no obvious signs of ill health, but some sign of ill health is liable to appear eventually.
- (2) The body may inaugurate a self-cleansing effort, such as a cold, or some other abnormal method of eliminating waste material, such as a skin disease or, in some cases, the development of an infectious disease, or some of the glands dealing with waste materials in the blood, may become enlarged in their attempts to work overtime to

cope with the extra work on hand. This frequently happens with children's tonsils.

- (3) The body may, if it fails to eliminate the excess of waste materials, try to tuck them away in various parts and tissues of the body, where, in small amounts, they will do the minimum of harm to the normal functioning of the body, but where, if they continue to accumulate, they may be the basic source of some future chronic trouble such as catarrh, or, more seriously, rheumatism.
- (4) The body may have some "weak spot", which cannot respond to the body's own efforts to adapt itself, as a complete unit, and functioning under the adverse conditions present due to the presence of excessive wastes in the blood stream. In such cases, acute or chronic disease of that particular organ may be set up.
- (5) When one organ of the body is overworked, or is diseased, and failing to function at its maximum efficiency, this inevitably upsets the balance of the body as a whole. Undue strain may then be thrown on some other organ, which may in turn show signs of disease. This is not, however, really a new disease but only a new manifestation of the old one.

(2) LACK OF SUNSHINE, SLEEP AND FRESH AIR

Sunshine, fresh air and sleep are necessary to all human beings, but particularly to children. Most children do not get enough of them even when well to keep them on the highest plane of potential health, but when ill, though the need for them is even greater, most children get still less sunshine or fresh air, and often too little sleep.

(3) ACCIDENTS OR INJURY

Accidents to a baby, such as falling out of his cot or pram, may sometimes cause a slight misplacement of the spine that is unobserved at the time, but which results in mechanical interference with the normal functioning of the body. In the same way a difficult birth, especially if forceps are used, may result in slight misplacements of the small bones at the base of the skull.

These misplacements may result in pressure on some nerves, so that they are unable to control their section of the body properly. Asthma, for instance, may be the result of pressure on

some nerve at the base of the skull, and may yield to manipulative treatment if dietetic treatment does not affect a cure.

(4) PRE-NATAL AND HEREDITARY INFLUENCE

Though Nature takes all possible care of the new life while the baby is inside his mother's body, depleting the mother's own store of health if necessary, still generations of living on wrong foods and in wrong conditions may produce hereditary tendencies to certain forms of ill-health. Some hereditary taints can, unfortunately, be inflicted directly on children by their parents' own actions, and passed from one generation to another. Examples of this are active maternal gonorrhoea infecting the child's eyes during birth, or syphilitic infection from either father or mother affecting nasal bones in pre-natal life, etc. Hence the necessity for the sake of the children, quite apart from moral issues, for healthy living on the part of both parents, and of absolute continence both before and after marriage. This is a responsibility which no parent, or any man or girl who ever expects to be a parent, dare evade.

(5) SUPPRESSIVE TREATMENT

Suppressive treatment of the first symptoms of ill-health, appearing to cure it, may easily cause disease to break out in some new form at some later date, as a result of the *same initial causes*.

These five factors, either separately or combined together, are the prime causes of children's ill-health. They are for the most part largely preventable, so that it should follow logically that it is wiser to alter these sickness-producing factors than it is to attempt to suppress the symptoms of their presence with drugs, vaccines, sera, operations and so on.

Fortunately the human body is very resilient, and is always trying to work towards health, or wholeness, and coughs and colds can quite rightly be regarded as an attempt on its part to have a sort of "spring clean" and get rid of accumulated wastes, and so eventually improve its own health. Many acute diseases can similarly have the same effect of "spring cleaning" the body if allowed to do so.

The Germ Theory

The medical profession regard children's infectious diseases as the result of germ or virus invasion, over which the mother has virtually no control. The orthodox treatment aims at killing the germ and "keeping the child's strength up" with whatever food he can be coaxed and coerced to take.

On the other hand, if the germs are secondary factors which only become established in the child's body when conditions there are favourable to their development, such as when there is an accumulation of wastes and toxins in the tissues of the body, then just killing the germs is very inadequate treatment, and not very helpful in the long run. In any case, killing harmful germs in a child's body, without at the same time killing the useful bacteria also present or upsetting the child's normal bodily processes, is a difficult thing to do. Nature has the most intricate and extraordinarily far-reaching ways of keeping the balance and working towards her goal. Germs, or bacteria, against which doctors wage unrelenting war, may even be types of allies of the human race. They act as indicators when things are going wrong, and they may act as dustmen and scavengers to the system. At the same time different varieties of bacteria or viruses do themselves produce characteristic symptoms in the child's body. It is these bacterial activities that influence the raised temperatures and the distinctive rashes and coughs and glandular swellings of the various infectious diseases, and which have led doctors to consider specific bacteria the *primary* causes of disease. The body's normal defences act on the bacteria and eventually destroy them. The original wastes, the vast masses of the destroyed corpses of the scavenging germs, the dead white corpuscles, and all the various emanations produced by them in their processes of multiplication, living and dying, *have to be got out of the system somehow* if the body is to regain its normal state of healthy functioning.

The actual type of invading germs is a minor consideration. Most infectious diseases are more or less self-limiting, but the condition of the child's general health *after* the infectious disease has run its course varies tremendously according to the way the child was treated during the active period of the disease.

Children's Pains

Children's pains are a warning that everything is not quite right, but only in a small minority of cases are these pains the forerunners of serious trouble. Unfortunately many mothers are so conditioned by fear, that to them, in imagination, every stomach-ache become appendicitis, every earache becomes a mastoid, every sore throat becomes diphtheria and every temperature with headache becomes infantile paralysis. This is undesirable, for most

of these fears are unfounded, and so give mothers a great deal of quite unnecessary worry.

Dual Purpose Treatment

An alternative treatment from trying to suppress the symptom is possible, and has proved to be highly successful.

The value of early treatment of any serious complaint is well known and is a vital link in the processes of cure, so that a simple home treatment, designed both to set right minor upsets and to be the right first stage in the treatment of a serious complaint, is absolutely invaluable to mothers.

This is the dual purpose of the simple natural treatment here outlined.

NATURAL TREATMENT

Natural treatment consists of four principles:

- (1) *Fasting, i.e.*, absence of food, medicines and injections.
- (2) *Cleanliness, i.e.* thorough elimination through all four channels, lungs, skin, kidneys and bowels, to get both internal and external cleanliness.
- (3) *Rest, i.e.* conservation of vital forces.
- (4) *Rebuilding, i.e.* careful selection of right foods and right quantities after the fast.

These four points must be dealt with in greater detail.

(1) Fasting

The idea of a child having a complete fast, even when he has a temperature and has no inclination to eat, still seems very strange to many mothers, but it is the natural thing for a child that is out of sorts to "go off his food". This is Nature's way of avoiding overloading of the system when it is not working smoothly, and should *always* be respected by the mother. She should be pleased to see that her child is healthy enough to feel when he is out of sorts and in need of a rest from eating. Sometimes the child is still ready to eat when he really would be better to abstain from food for a day or two. This may be the case when the child has some chronic trouble. In such cases the mother will need to initiate the fast.

WHEN TO FAST

- (a) When a child has a temperature (see also p. 183).
- (b) After a bout of sickness.
- (c) As a preliminary treatment of some chronic trouble, such as catarrh, enlarged tonsils or worms.

(a) *When a child has a temperature* his body is not functioning normally and so should not be expected to digest and assimilate food. In acute diseases the temperature may remain high for three to five days, when only water, or clear vegetable broth, diluted apple or grape or similar raw fruit juices, diluted raw carrot juice or water flavoured with lemon juice and honey or with black treacle (not sweetened with sugar) should be taken.

If enemas and baths are given regularly it is unusual for the temperature to remain up for five days, and often it will come down on the second or third day.

The longer the temperature and fast, the more care will be needed in the reintroduction of food and the general rebuilding processes, but even so, fasting speeds up the child's recovery.

(b) *After a bout of sickness* the stomach needs a rest from any effort at digestion, particularly if the sickness is the result of either overeating or a liver chill. In most cases abstinence from food for twenty-four hours is a good general rule.

(c) *As a preliminary stage* for any cleansing treatment for chronic complaints, a fast of one or two days, to be followed by a period on a vitalizing diet, is most valuable.

ARRANGING THE FAST

The child should be kept away from the sight and the smell of food if he is not having any, and the easiest way to do this is to keep a fasting child in bed. Some compensation should be offered to counteract the loss of the pleasure of eating, such as unexpected little presents. The mother has also to be prepared to give her child more of her time than usual, in reading aloud to him or playing games with him and so on.

FREQUENCY OF FASTS

Because of the great benefit derived from a single fast, mothers sometimes repeat and overdo them, but no child should have frequent or routine fasts, and if a child *appears* to need them it is probably a case of deficiencies in the diet, requiring revision of this rather than another fast. A fast helps to eliminate one result of wrong food, the accumulation of excessive wastes in the system, but it does *not* help to eliminate the other result of wrong food, the deficiencies of mineral salts and vitamins. Repeated fasts will only intensify deficiencies and so aggravate the very conditions a single fast will help to cure.

(II) Cleanliness

This is the most active part of the treatment, and since there are four channels of elimination there are four sections to this cleanliness.

(a) *Elimination through the bowels*

When a child is fasting no fresh food is coming into the alimentary canal to stimulate normal contractions and eventual evacuations of the waste, or faeces. Further, when assimilation is not going on, wastes from the body cells may be released into the alimentary canal. It is essential that these substances should not remain in the alimentary canal or they will be reabsorbed into the system. For this reason the *mother should give her child an enema every night when fasting*. Giving an enema is really a perfectly simple and straightforward thing to do and need not worry mother or child unduly if sensibly carried out. (See page 192.)

The enema should not, however, ever be adopted as a regular habit or used as a routine procedure. It is an emergency measure, and should never in any way be treated as a substitute for the normal functioning of the bowels when the child is in normal health, having normal food and exercise. If used regularly it can only weaken the proper functioning of the bowels, and could become just as bad a habit as taking drugs. Further, its regular use would deplete the intestine of valuable bacteria, mineral salts and vitamins. The enema should neither be feared nor used excessively.

(b) *Elimination through the skin*

The skin is a splendid organ of elimination and should always be treated as such. It is covered with tiny pores, or sweat glands, from which moisture is continually being given off. Minute quantities of solid deposits are left on the skin from this moisture when it evaporates, even in health. In sickness the amount of waste materials eliminated in this way is increased, and every effort should be made to encourage this.

Firstly, regular warm baths should be given once or twice a day to a child in bed unless the child is really too ill (either too high a temperature or too exhausted) to stand it. In that case a sponge bath in bed is a good thing. This bathing removes the wastes deposited on the skin surface and stimulates the glands underneath to further action. If the child is not too ill the skin

can be further stimulated by a friction rub—that is, good brisk rubbing with a rough towel.

Secondly, the skin can be encouraged to extra sweating by a hot sitz bath. (See page 196.) This is very useful where there is a temperature but little perspiration, and it is also useful to induce sleep. Great care must, of course, be taken to avoid any chill or strain on a weak heart.

Thirdly, the system will sometimes benefit enormously, and be enabled to get on with its elimination particularly well, through the application of a wet pack. (See page 199.) If the mother feels nervous about this form of treatment, however, there is no need to feel that it *must* be carried out. It is probably wisest to have the support of someone else who is familiar with this form of treatment when applying it for the first time.

(c) *Elimination through the lungs*

The lungs are the third eliminating organ. Moisture and gaseous impurities leave the system when breathing out, and unless there is a continual supply of fresh pure air to breathe in, the discarded impurities can only be taken back into the lungs again.

A sick child must be kept warm, but the air in the room *must* be fresh. This means that the window or windows must be kept well open day and night. The child can have a hot-water bottle and should wear a good warm sweater or similar comfortable and protective garment when sitting up. If necessary there should be a fire in the room, but at all costs the air must be really fresh. Night and morning, unless really too tired or ill, the child should take a few deep breaths as close to the wide open window as possible. If there is any sun the bed should be so placed that the child gets it.

(d) *Elimination through the kidneys*

Though the sick child should not eat, he can drink as much as he likes. Just plain water is very good, and some children like drinking it best plain. Otherwise, raw fruit or vegetable juices can be given, but they should be well diluted with water (see page 157). Very often, too, if ice is available, the child will like to have a piece in his glass.

The quantity of fluid taken must depend on what the child feels like. Sometimes a child will drink a good deal, and at others very little. He should always have a glass of water

beside him during the night, and also a flashlamp under his pillow or a nightlight, so that he can find the drink if he wakes in the night and feels thirsty.

(III) Rest

It is the body's own vital forces that really effect the cure of disease. The treatment here suggested just helps the curative powers inherent in the child's system to work more strongly than they otherwise might and than they possibly can under suppressive treatments.

All the forces must be directed to these curative processes and none of them spent on attempts to digest food. This is the reason for keeping a sick child warm in bed when fasting, so that energy is not used up in keeping warm and in running about. However it is not always satisfactory to try to keep a very small child in bed even when fasting, unless he is seriously ill. If the child is not really ill and is feeling full of life and energy it may be a mistake to keep him in bed for the whole of the day, as more nervous energy may be used up by keeping him in bed than will be used up by letting him be up and dressed and playing about the room, so again it is a case for discretion. It is wisest to keep any young child, if fasting, in one room to avoid the risk of a chill, and also the sight or smell of food. Even if not in bed, an extra long rest midday and early to bed should be the rule.

Children who are treated in these simple ways when ill, sleep very much better, even though they are ill, than do children who have food and medicines to cope with as well as their sickness. They do not sleep as restfully as when well, but they do tend to sleep a good deal. This is a valuable part of the curative processes, and if a sick child is sleeping he should not be wakened, even if it is time to bath him and settle him for sleep for the night. Usually a sick child will be ready for his evening enema and bath any time from 4.30 p.m. onwards, and it is best to give the enema and bath early rather than wait till later, only to find that the tired child has already fallen asleep. A feverish child will not sleep soundly and may have fitful dreams, so that a shaded light should be left burning and some comforting adult should be within hearing, ready to soothe at the first cry.

(IV) Rebuilding

Once the temperature is down, usually in three days, but it may sometimes take five, then the process of restarting the

digestive processes on the right lines begins. In most cases pure fruit juices, as distinct from the diluted juices given as drinks, can be given, followed by fresh ripe raw fruit such as grapes, apples and oranges, tomatoes, tender lettuce, etc., and cooked vegetables. The number of days on fresh fruit and vegetables only must depend also on the state of the child's illness. In most cases, but not in all, milk or milk and water can be added directly after the fresh fruit. The next foods to give are dried sweet fruit, potatoes, grated raw carrots and other salads, whole-wheat bread and butter with honey or black treacle, grated cheese, and eggs, in this order.

Children who previously have rather disliked vegetables may easily take them happily if they are attractively introduced in small amounts after a fast.

Care must be taken to satisfy, but not to overfeed the child at this stage, as he is often very hungry. A small "clevenes" and a very small supper, preferably of ripe raw fruit with perhaps a little milk or cream, can be added to the normal breakfast, dinner and tea. A child who has fasted for several days should not get up and be energetic right away. He will probably feel terrifically fit as soon as he starts to eat again, but he should "make haste slowly". He should not get up at all until he has had some solid food, and when he does get up it should be for about an hour only at first, either before lunch or before tea. The second day on food he can get up for a longer period, and the third day, if the weather is reasonable, he should be ready to go out of doors for a short time between eleven and twelve. But he should not do anything strenuous until he has had several meals and some wholewheat bread and butter.

Complications

One serious result of the practice of trying to suppress children's fevers and other signs of ill-health with powerful drugs, instead of trying to remove the underlying causes, is the prevalence of "complications" following on after things like measles or scarlet fever. Aftermaths of the primary illness, such as bad eyesight or damaged heart, which are much more serious and lasting than the original disease, should never occur. They have no incentive to occur when the child is treated according to the principles here set out, for though any disease is unpleasant, disease is actually a normal process, one of Nature's methods of *improving* the child's health. It is probably man's failure to realize this,

and his attempts to step in and suppress the body's manifestations of its "dis-ease", that not infrequently result in ill-health breaking out in some other and often more serious direction later on.

These four needs of fasting, cleanliness, rest and rebuilding are not fully recognized in orthodox medical treatments. It is true that the child in bed is given laxatives to push out of his system the food he really should not have eaten, but apparently no thought is given to the removal of possible initial waste situated in the actual cell tissues, or of the germs, both dead and alive, and their emanations, or of the removal from the body of the various drugs and chemicals applied to suppress the symptoms. These are all foreign to the child's body and so, for his healthy functioning, they must be removed eventually. If little or no help is given to the body to remove them, much of them may remain for some time in the child's system.

The result is that under orthodox treatment the disease comes to its natural conclusion, leaving the body still overloaded with toxins and waste materials, with chemicals added too. In such cases the body's own natural effort to spring-clean itself and improve its general health will have been frustrated rather than helped. Though the acute stage of the disease is over, the child often feels far from well and a slow period of "convalescence" follows. The child, though technically "well" in that he has no obvious active sign of ill-health, is in the pre-illness condition ready to succumb to a different infection in another attempt at self-cleansing. He will not have reached the condition of positive vital health, which is every child's birthright.

The child treated simply according to the suggestions here set out is in *better* health after the measles or scarlet fever than he was before the attack. His system is like a house that has been turned a bit upside down with spring-cleaning, but is now cleared of accumulated dirt, cobwebs and spiders. Things are back in their right places, all scrubbed and polished. There is no lengthy convalescence if the treatment has been right, and no reason to fear that the child will suffer from "complications" or relapses.

DETAILS OF CURATIVE FASTING TREATMENT

If a child is seriously tired or feels out of sorts but has no temperature, often all he needs is to be given a warm bath and to be put to bed for an hour or two, with a drink of diluted raw fruit juices or clear vegetable broth, and left to rest or sleep,

and to miss the next meal. If this happens in the morning and the child misses lunch he may feel fine again by teatime.

If, however, some digestive upset or some infectious disease is on the way, and the child does not feel better by teatime, then missing a meal is just as desirable a thing to do, for the right treatment has been started in good time.

If a child has a temperature it is wisest to be on the safe side and the mother should:

- (a) Give the child a small enema of plain warm water.
- (b) Give the child a warm bath.
- (c) Put the child to bed with a hot-water bottle, if liked.
- (d) Offer a drink of clear vegetable broth or diluted raw fruit juices or plain water.
- (e) Tuck the child up for a rest or sleep, with the windows open but with the curtains drawn if the light is too bright.

When really ill the child needs, and wants, to rest and sleep for most of the day, and even if tired of doing these he may not feel like doing anything else.

Later on, when he is feeling better, he should be able to entertain himself for a part of the day, if the mother will pop in and out to see how he is getting on.

To do this he really does need:

- (a) A convenient table beside the bed,
- (b) Some sort of bed table,
- (c) Scissors, coloured chalks, paper, pencils, magazines, and even paste,
- (d) Small toys and bricks,
- (e) A jig saw puzzle on a separate tray,
- (f) If possible, a portable wireless by the bed.

Suggested Routine and Drinks for Fasting Child

The amount of time the child will rest or sleep when fasting depends enormously on how ill he actually is, so that it is impossible to do more than make out a rough guide.

Small drinks every $1\frac{1}{2}$ or 2 hours, however, do break up the day for the child, and make a suitable framework for playing by himself, resting and being entertained by his mother.

In some cases the child may feel too ill to want to do anything at all except rest, and he may not even feel like being read aloud to, but as his condition improves he will be all the better for an organized day.

The following time-table has proved to be of fairly wide application for a day when a child is having no food at all.

DETAILS OF DRINKS SUITABLE FOR A FAST

Drinks of clear vegetable broth, or diluted raw carrot juice should be used as well as diluted fruit juices, as a balance to them, for though fruit juices are generally preferred, the more acid ones, such as orange, lemon or grapefruit juice might in some cases prove harmful, especially if used exclusively for more than one day. Grapes or fresh raw apple juices are less acid.

Also if possible one or two drinks in the day should be molasses or black treacle or honey, in water.

If the diluted drinks are not enjoyed (and they can seem rather insipid) the child can be allowed to drink first the few spoonfuls of fruit juice by itself, from a tiny glass, and then immediately drink a cupful of water after it, to dilute the juice internally.

A few drinks are suggested here, but the list is not exclusive. As a general rule, unless otherwise stated, the proportion of 1 oz. of juice to 3 oz. of water can be followed.

Vegetable

- (1) Clear vegetable broth hot or cold (see recipe p. 208).
- (2) Freshly made raw carrot juice (see recipe p. 202).
- (3) Freshly made raw swede juice.

Fruit

- (1) Raw grape juice.
- (2) Raw apple juice (made as carrot juice is, recipe p. 202).
- (3) Raw or tinned or bottled tomato juice.
- (4) Raw orange juice.
- (5) Raw tangerine juice (less acid than ordinary orange juice).
- (6) Raw grapefruit juice (1 oz. juice to 4 oz. of water, and sweeten with honey if necessary).
- (7) Raw lemon juice (1 teaspoonful in glass of hot water, sweetened with a little honey).
- (8) Raw blackcurrant juice (1 oz. juice to 4 oz. of water).
- (9) Bottled apple juice (1 oz. apple juice to 4 oz. of water).
- (10) Bottled blackcurrant or rose hip syrup (1 tablespoonful to 4 oz. of water).

(These syrups contain a good deal of white sugar, so should be used very sparingly, say one a day, and only when better raw juices are not available.)

- (11) Juice from home bottled cherries, blackcurrants, raspberries, blackberries, apples, etc., but usually not dam-

sons or acid plums. Dilution depends on strength of water and juice solution. A weak drink only should be given.

Flavourings

- (1) Crude molasses or black treacle. ($\frac{1}{2}$ -1 teaspoonful according to age, in a cup of water, hot or cold.) This is an exceedingly valuable drink for a fasting child, owing to its richness in potassium salts, trace elements and some of the vitamin B group. Crude molasses (not at present obtainable in England) is better than black treacle.
- (2) Honey (pure and untreated). (1 teaspoonful in a cup of water.)
- (3) Yeastrel (or similar product). (To taste, in water.)
- (4) Vecon. (1 teaspoonful in a cup of hot water. Also a useful substitute if clear vegetable broth is not available.)

(I) A DAY ON WATER AND JUICES ONLY

- 7 a.m. Take temperature. Drink of water or diluted fruit juice.
- 8 a.m. Diluted blackcurrant juice.
- 8.45 a.m. Enema (probably only needed on first day of fast). Bath. Change night attire. Freshly made bed.
- 9.30 a.m. Cup of hot clear vegetable broth.
Cutting out, drawing, sewing, etc., if feeling up to it; otherwise just rest and relax.
- 11 a.m. Diluted freshly made raw carrot juice.
If a hot sitz bath or a cold pack is to be given to induce perspiration and to assist sleep or relaxation, this is a good time to give it.
Otherwise Mother reading aloud, or games with Mother.
- 12 noon Rest or amuse himself.
- 12.30 p.m. Clear vegetable broth, as much as the child likes to have, followed by removing jersey and any extra pillows and lying down for sleep as at night. This should last as long as possible, and in any case up to 2.30 p.m.
- 2.30 p.m. Diluted orange, apple or grapefruit juice.
Amuse self with toys.
- 3 p.m. Games with Mother, or reading aloud by Mother.

- 4 p.m. Drink of clear vegetable broth or raw carrot juice in water, while Mother has a cup of tea with child and chats with him. (She should not eat in his presence. She can, if she likes, eat her piece of cake beforehand.)
- 4.30 p.m. More reading, or game, or start routine for bed.
- 5 p.m. Temperature taken.
Enema.
Brush teeth.
Bath, followed by freshly aired clothes.
Remade bed.
Drink of honey or black treacle in hot water.
Final little story (if wanted).
- 6 p.m. Settle for night, with door left open and light on landing, so that Mother can easily hear if she is wanted during the evening.
- 10 p.m. If the child is awake offer chamber and a drink.
Leave drink by the bedside for the night, and, if possible, a nightlight burning.

In all cases water or iced water can be given instead of the juices suggested if the child prefers it, and in any case the child should not be made to drink anything. Sometimes on the first day of a high temperature the child will drink surprisingly little, but will drink a great deal the following day to make up.

The air in the room should be kept fresh, but the child should not be sleeping in a draught.

This routine can be carried on for up to five days, if the temperature remains up, but generally speaking it is not desirable to fast a child for more than three days without expert advice.

After a temperature and fast of two or three days the return to normal food should be gradual. The first foods given can be either:

- (a) undiluted fruit juices;
 - or (b) ripe raw fruit (grapes for first preference, but oranges, apples, pears, tomatoes or peaches, etc., may be given);
 - or (c) suitable vegetables either conservatively cooked, or as salads if the latter are enjoyed;
 - or (d) diluted milk;
- or a combination of these throughout the day.

Drinks of clear vegetable broth should still be given, and the amounts of food given not overlarge.

(II) FIRST SOLID FOODS AFTER A FAST

- 7 a.m. Take temperature (may easily be slightly sub-normal).
Drink of diluted orange juice, or water flavoured
with either lemon juice and honey, or with black
treacle.
- Breakfast** Glass of undiluted orange juice.
(8 a.m.) Ripe grapes *or* orange *and/or* apple, to be very well
chewed.
- 9 a.m. Brush teeth. Wash hands and face (or bath if pre-
ferred).
Bed made, etc.
- 9.30 a.m. Amuse self.
- 11 a.m. Clear vegetable broth to drink (large glass).
Mother to read or play games.
- 12 noon Amuse self.
- Lunch** Mixed vegetable soup. Grated ripe raw sweet apples
(12.30) (grated with skin on) with a few chopped raisins and
ground almonds.
*Glass of milk and hot water to drink (or milk and
hot vegetable broth).
- 1 p.m. Lie down for sleep.
- 3 p.m. Drink orange juice or honey tea.
Reading aloud by Mother, or games.
- Tea** 2-4 oz. freshly made raw carrot juice.
(4 p.m.) Fresh fruit salad containing a few chopped dates.
*Milk and hot water to drink.
- 4.30 p.m. Talk and play with Mother.
- 5.30 p.m. (Normally enema omitted.)
Bath. Change into night attire.
Bed remade.
- 6 p.m. Final story.
- 6.15 p.m. Drink of clear vegetable broth or any of the other
non-milky drinks preferred.
Sleep.

* If milk is contra-indicated, as in catarrh, whooping cough or worms,
the meal can begin with rather more vegetable soup instead—e.g., strong
vegetable broth with some chopped vegetables in it.

(III) A DAY ON FRUITS AND VEGETABLES ONLY

The following régime and diet can be used as the first one, two or three days of a short period of cleansing diet, when there is no temperature and when a complete fast appears too difficult or too inconvenient to be undertaken.

An enema should usually have been given the night before.

On waking Drink of diluted fresh raw fruit juices.

Breakfast Ripe raw fruit, such as grapes, apples, pears, oranges, (About peaches, cherries, tomatoes.

8-8.30 a.m.) If none of these is obtainable use instead soaked and simmered prunes or dried apricots or baked apples.

9 a.m. Brush teeth. Attempt to have bowel evacuation. Wash hands and face. Bed remade.

9.30 a.m. Amuse self with books, toys, etc., or wireless.

11 a.m. Large drink clear vegetable broth. Reading aloud by mother, or games with her.

12 noon Amuse self.

Lunch Cup of vegetable soup.

(12.30 Spinach, carrots, leeks or onions (possibly a baked potato). p.m.)

Ripe raw fruit salad.

1 p.m. Lying-down rest or, if possible, sleep.

3 p.m. Drink diluted fresh ripe raw fruit juices. Amuse self.

Tea 2-4 oz. freshly made raw carrot juice.

(4.30 p.m.) Raw vegetable salad.

Any fruit as at breakfast.

2-3 dates.

Mother has afternoon tea with child (not eating cakes, etc.).

5 p.m. Reading or games with mother.

6 p.m. Brush teeth. Attempt to have bowel evacuation. Bath.

Final short story.

Drink of either vegetable broth or diluted fruit juices.

6.30 p.m. Sleep.

It is not essential for an older child to stay in bed on the above diet if there has been no previous fast, and if the child has reasonable self-discipline, and will not fuss for, or try to get,

other foods, there is no reason why he should not be up and about as usual, but a complete rest after lunch and the early bed should be adhered to.

A schoolchild may benefit from an occasional day on the above diet if he is out of sorts or apt to catch cold easily, and the following day meals should be expanded with the items of food suggested in the following section.

Further Additions and Return to Normal

The above diet can then be expanded on succeeding days in the following ways:

- (1) Addition of Muesli to breakfast (or its substitution for the fruit).
- (2) Addition of grated cheese and/or a glass of milk as well as potato to the lunch.
- (3) Addition of 100 per cent. wholewheat bread and butter to tea with honey, Yeastrel or homemade jam.

It can then be finally further expanded by:

- (1) Addition of 100 per cent. wholewheat toast and butter to breakfast and milk* or milk and hot water to drink.
- (2) Alternative of other concentrated protein at lunch, such as coddled egg or lentil or bean or nut savoury, and baked or stewed apples or other fruits and top milk for pudding.
- (3) Grated cheese may be added to the salad and some sweet dried fruit, or homemade wholewheat cake, biscuit or oatcake. A small drink of milk* can be added if wanted.

Response of Child to This Type of Treatment

Since it is natural for sick creatures to go off their food and sleep all they can, it is not surprising that children respond exceedingly well to the methods of treatment here outlined. It is not difficult to gain the co-operation of quite small children if the reasons for the treatment are explained to them simply and truthfully. The child's understanding of, and co-operation with, the mother's treatment is a most valuable asset in speeding the cure, as it is important to keep the child as happy and as contented as the trials of any disease will permit. If he were

* If milk is still contra-indicated, it may be possible to get some nut cream and to dilute this and use it on the fruit, or dilute it still further and use it for a drink. If it is not obtainable and the child's condition or complaint indicates that he is better without milk for a period, the milk should just be omitted and extra water or any of the drinks suggested previously taken instead.

resentful and antagonistic as well as ill the mother's job would be much more difficult.

To illustrate how quite a small child can more or less appreciate the principles of this treatment, I have here inserted a

-heopingcogh-

Hooping cogh

orange juise grapes for dinner..

brekfast enly onlyers orange juise the body dus not want moor

-re the body wants to have evry thing turned out that makes it

have hooping cogh. so you must give it an enmer to make it

better for it to clear out all the stuff that makes hooping co

-h it dus not want eny moore food for it will make- the

child sick. tea the same as dinner.

The enmer should be morning and night.

a wet pack you should give to the body onee a day

a wet sheet with cold water to rap rond with allthe hot water

bottles you have then tuk into a bed the child will sleep-
-eep- -eep a- ower. probly or only a half an ower

do this evry day intell the child like- better the child

should have the first first- fue days on nothing but

orange juise. a wet pack round the thout at night

is very good. you must get a cold strip of an old sheet

with another sheet that is worm to wrap over. tie with a

pin. to sleep with for the night. makes it very much bet

-tter to the throat and helps to stop coghing.

Facsimile of some spontaneous and unaided original typing done by June, at the age of 7 years (Incidentally, she has improved on her treatment in imagination, as she had only one wet pack, not a daily one M B)

facsimile of some spontaneous and original typing done by June at the age of seven, when enjoying herself playing with my typewriter, as a special treat when just recovering from whooping cough. This was kept for fun among other relics of the children, and has now been resurrected as an illustration.

IMMUNIZATION, VACCINATION AND INJECTIONS

If the reader has followed the train of thought and belief outlined in the previous pages she will realize that to rely on immunization, vaccination or injections to give health to one's children does not fit in with these beliefs.

If she is convinced that health is a positive condition of the body, produced by a clean and well-nourished blood stream, one neither suffering from deficiencies nor overloaded with disease-provoking waste materials, then she will not want to rely on injecting any foreign substance into her child's body in a search for health.

It is generally agreed that if people are in perfect health they do not catch infectious diseases, while when their state of health is below par, they become susceptible. Since the health of the vast majority of people is well below its potential perfection, that is to say it is sub-standard, they are constantly liable to succumb to infection.

Immunisation is therefore an attempt to produce an artificial immunity in people whose health is sub-standard. There is, of course, no harm in such an attempt provided it is itself absolutely safe and harmless, and provided it does not supersede the essential need to remove the dirt and deficiencies from which ill-health ultimately proceeds and whose effects it may temporarily mask. Unfortunately immunization is *not* absolutely safe and harmless, and it *does* distract attention from raising the general standard of children's health and living conditions, and from getting rid of dirt and deficiencies.

Where conditions of living and food are really poor as in Germany at the end of the 1939-45 war, or in Quebec city from 1930-40, diphtheria immunization failed to prevent the spread of diphtheria in the way it theoretically should have done if it really had the preventive powers claimed for it by its supporters. The propaganda in England in favour of immunization appears to come from a policy of fostering despondency and alarm about the dangers of diphtheria, minimizing the dangers of immunization, and exaggerating its possible benefits.

Complete immunity to disease is probably undesirable, and almost certainly unattainable, for disease is Nature's disciplinary rod, applied when living things fail to conform with her fundamental laws.

The child is well provided with his own natural defence mechanisms against the intrusion of foreign bodies, either dirt or

germs, by, in the first instance, the protective covering of the skin, then by the moist mucous membranes, and finally by his internal secretions, immunizing bodies and white corpuscles. The skin, though delicate and sensitive, is a splendid protective agent, and the openings in it are all small and their number is reduced to a minimum. These openings (mouth, nose, ears, etc.) are all protected in one way or another to prevent foreign bodies from entering the system through them, so that when medical science decides to perforate this protective skin and introduce foreign bodies, such as serum, directly into the child's blood stream, it is violating the integrity of the system. Doctors consider that they are right to do this, and that the risks of obvious trouble resulting from these violations are a lesser evil than the risks they believe the child will run if without them. Possible long-term ill-effects of immunization have not yet been seriously considered, though the surprising rise in infantile paralysis cases has curiously enough followed the increased immunization and use of sera generally.

But any substance alien to the child's normal metabolism is a "foreign body", whether it comes from tainted food, an accident or cut, a medicine bottle or an injection needle, and the body must treat it as such. Injection of various foreign bodies into the blood stream must make it less clean than it would otherwise be, and to say that this process will drive out disease seems to show a lack of belief in the intrinsic perfection and potential health of God's marvellous creation, the child's body. A little scientific humility might help here, for is it not a case of expecting Satan to drive out Satan?

The healthy skin can keep out many external foreign substances, and if the child has a really good environment and is properly fed, then the mucous membranes will have all the vitamins and mineral salts they need to cope with all normal everyday infection, and should there be a mass infection, beyond the immediate scope of these membranes, there are still the internal secretions and immunizing agents to deal with such things. When the body reacts to mass infection by raised temperatures and other signs of ill-health, then the mother can give help along the lines already detailed in this Chapter. The introduction of further foreign bodies into the system, however well intentioned, does add to the total amount of alien matter present in the system which has to be disposed of.

Though breast-feeding by a healthy mother is everywhere recognized as the best way of making a baby healthy, and of strengthening his resistance to all types of disease, still far more money is spent on publicity and propaganda in urging mothers to have their babies immunized than is spent on encouraging them to breast-feed their babies and teaching them how to do it.

Propaganda in favour of immunization, however, is nowadays so strong that many mothers are literally afraid to stand out against it. It is, of course, extremely difficult for parents who themselves have no faith in, or desire for, injections, to know what to do for the best for their child's health and their own peace of mind. The fact that the public has been frightened and not educated into its present attitude of faith in injections does not help them much. Parents who would like to refuse immunization, but feel that they might "panic" if their child got ill and so submit to injection at the worst possible time for the child, might be wisest to get the unnatural process over beforehand, for though it cannot bring positive health, it may possibly prevent ill-health from showing in that particular form at that particular time.

Neither vaccination nor immunization is compulsory under the new Health Act, but some schools and institutions and training centres may make them a condition of entry.

CHAPTER X

CHILDREN AND ILL-HEALTH SOME SPECIFIC FORMS OF ILL-HEALTH

Since the basic causes of various forms of ill-health appear to be the same, it is inevitable that the treatment for the different manifestations of this ill-health should be primarily the same too. The treatment outlined in the previous chapter, suitably modified as necessary to the individual child and to the particular manifestation of disease in question, is easy to put into operation.

Detailed accounts of the various complaints and detailed instructions for treating each one separately are not given here, but just short notes on the individual complaints.

In every case the previous chapter should first be read, to avoid misunderstandings.

Acidosis

Bouts of vomiting which come in cycles, or as a result of over-excitement or anxiety, are called acidosis, and can be a great bugbear to some children and to their mothers. The condition is influenced by psychological and emotional factors as well as by diet, and the mother whose child becomes sick with excitement, or with nervousness if she leaves him for a day, has a difficult problem to solve.

As previously stated, repeated fasts are undesirable for children, but it is also undesirable to feed a child immediately after he has been sick. Every effort has to be made to avoid letting the child develop the "habit" of sickness or to associate sickness with psychological causes. The child who can say to his mother "I shall be sick if you go out" puts his mother in a difficult position. Friends and relations, as well as the mother herself, are sometimes responsible for giving the child the first idea of making such a statement by their own unguarded comments in front of the child (*e.g.*, "I don't think I had better go out for the day with you, though I would love it, but Mary is so often sick when I go out"). Discussion about the child's possible sickness should never take place when the child can hear.

As soon as a mother begins even to suspect that one of her children may be liable to have these recurrent sick turns, she should set about circumventing the causes by:

- (a) A simple routine.
- (b) Specially careful training.
- (c) Diet and sunshine.
- (d) Avoiding chills, late nights and over-stimulation.

(a) *Routine.* The routine should be simple and regular, but a little flexibility is desirable. If a completely inflexible routine is attempted, sooner or later some alteration will prove inevitable and might then bring on an attack. Parties and treats should be allowed, but in very strict moderation and of a minor kind only.

(b) *Training* must be maintained, as ordinary simple nursery discipline is a help, not a hindrance, to the child. The custom of giving way to an acidosis child just for fear he will be sick can easily make him worse. Special efforts should, however, be made by the mother, even more than with normal children, to avoid emotional clashes between herself and her child in carrying out the affairs of the day. Opposition from the child should not be anticipated by the mother either in voice or in manner. If her requests are reasonable she should assume that the child is going to co-operate, but if she feels opposition is imminent she can often circumvent it by skilful management. For instance, if the mother suspects that the child is going to object to putting on his shoes or Wellingtons she can say, "Which shoe shall we put on first, the right or the left?" or attempt to sidetrack impending opposition in some such way. Naturally it will not always work, but a happy "play" relationship between the mother and her child is a great help in avoiding emotional sickness.

(c) *Diet and Sunshine* are of paramount importance. The acidosis child is usually thin and inclined to be restless and nervy, yet has a considerable, or even an acute, intolerance of fats. These foods must therefore be curtailed according to the individual case, and cod liver oil should not be given. In fact, excessive doses of cod liver oil in babyhood may even predispose the toddler to acidosis.

Milk can usually be taken, if diluted half and half with hot water, and possibly with the addition of half a teaspoonful of honey. This dilution is preferable in some ways to giving such children skimmed milk, to curtail their fats.

Curtailling fats over a long period, can, however, result in deficiencies, unless care is taken to compensate for these, in particular deficiencies of vitamins A and D. To avoid the risk of deficiencies the acidosis child needs, even more than other children, to have plenty of sunshine and fresh air and sun and air bathing, and to have natural unspoiled, unprocessed food, and with all his bread and other cereal foods made from one hundred per cent. whole-wheat stone-ground compost-grown flour. Plenty of conservatively cooked green vegetables and vegetable broth to drink should be taken daily, and tender salads of watercress, celery heart, tomato and lettuce heart are usually well tolerated. Raw root vegetables, such as carrots or beetroot, may not be tolerated, but raw carrot juice usually is, and when taken absolutely freshly prepared is an excellent source of vitamin A. Raw cabbage heart and raw Brussel sprouts hearts and broccoli flowerets are all excellent, but may not always be well tolerated, in which case they should be avoided. Ripe raw apples are usually well tolerated and much liked, and should be given regularly. Tangerines are often better than oranges which may not always agree. Grapes hardly ever disagree. These foods will go a long way towards removing underlying deficiencies of trace elements which may be partially responsible for the trouble, and will supply optimum amounts of vitamins A, B and C, while the fruits and vegetables have also a valuable neutralizing effect on acids in the system. Adequate vitamin D can best be supplied by seeing that the child has *naked* play and exercise every day, in the sunshine whenever possible, otherwise in the open air, or, in winter, in a room with the windows wide open, even if a fire is necessary. Naked exercise in the fresh air is an excellent way of helping the body to manufacture its own vitamin D.

The common practice is to give acidosis children extra sugar and sweets and glucose and lots of carbohydrate foods, such as sweet biscuits. Adequate supplies of easily absorbed sugars do help to balance up the fat metabolism, but these sugars should be natural sugars, not the highly acid-forming manufactured white sugar and its products. Honey, black treacle, molasses, dates and raisins and brown sugar are the right foods to choose, especially if more than normal amounts of sugar are being taken. Sweet cakes and biscuits are specially undesirable when made with white sugar and white flour, as they constitute a drain on the B vitamin in the child's system, a deficiency of which may easily be a contributory cause of the nervous sickness.

The deterioration in the teeth of children who suffer from acidosis may well be the result of excessive consumption of refined white sugar, glucose, biscuits and white bread, rather than be caused—as is usually stated—by the fact that the child is *not* having the official amounts of butter, eggs and cod liver oil.

(d) *Chills*, especially if brought about by sitting in wet shoes and stockings, should be guarded against, and the child should be adequately clothed (but not over-clothed) for outdoor play. All forms of over-stimulation or late nights, causing loss of sleep, or wildly exciting games, especially just before bedtime, should be guarded against.

Adenoids and Tonsils (see also "Operations", p. 179)

When these glands are enlarged it is a clear case for a "spring clean" followed by a revised diet, as outlined previously. Tonsils tend to become enlarged whenever the child has any other symptoms of ill-health, but this does not necessarily mean they must be cut out for they also tend to shrink somewhat when the other specific symptoms of ill-health have passed.

They respond in time to correct diet, and should not be removed if it can possibly be avoided. Apart from the severe shock always caused by an operation on a child, the tonsils have their own definite function to perform in the lymphatic system of the body, and once they have been removed their work has to be carried out by other glands, which may themselves become over-worked as a result.

If the tonsils have been so overworked that they have become septic, or if the adenoids are so much enlarged that they are completely blocking the nasal passages, it *may* sometimes be the lesser of two evils to have an operation to remove a part of them, but things should never be allowed to get to such a stage. If the throat is very septic, then it is a sign of a badly toxic state of the blood stream, so that even if the obvious symptoms are removed by operation, a change in the child's diet must also take place if future trouble resulting from the same underlying toxic causes are to be avoided.

Tonsils can sometimes be reduced by finger manipulation without anæsthetics or by suction, but such methods may have other drawbacks, especially for small children.

Allergy

Some children regularly react in an adverse way to certain

foods. Eggs may make them sick, fish or milk may bring on asthma, strawberries may bring out a rash and so on. In such cases the child is said to be "allergic" to certain foods. In other cases a child may be repeatedly ill without the mother knowing the cause, which may be an unrecognized allergy to some unidentified article of food.

When the food to which the child is allergic is known, then this article should be omitted from the diet for the time being, and every effort made to improve the general balance of the child's system by the use of vegetables, vegetable broth, raw salads and other whole unspoiled foods, so that no good article of food can any longer upset the balance of the system and make the child ill.

If there is no known food to which the child is allergic yet allergy is suspected, then it is a question of trial and error until the mother finds out which food or foods must be omitted to improve the child's health. She then incorporates this knowledge into her treatment of the child.

Appendicitis

Nowadays probably every childish stomach pain is feared to be appendicitis, even though very few pains are even in the right place to justify such a fear. Continued abdominal pain around the navel or acute pain low down on the right side of the abdomen, with sickness and rise of temperature, may be caused by inflammation of the appendix, but even so an operation is not necessarily unavoidable.

Complete rest and relaxation in bed with no food at all and with hot flannels applied to the abdomen is the home treatment to be given, and of all things the child should not be allowed to sense worry and anxiety on the mother's part. A pain of this sort at once becomes much more serious if the child becomes frightened or anxious about itself.

An operation should be avoided if possible. A fast, with hot packs, followed by a whole, unspoilt, properly balanced diet, will help the system to clear up the inflammation in a more natural way, but expert advice should be obtained.

Asthma

This can be very frightening to both mother and child. It appears to be the result of one or more of the following causes:

- (1) heredity,
- (2) nervous fears,

(3) diet (see also Allergy),

(4) spinal misplacements,

and all four should be considered in trying to effect a cure.

In so far as heredity is a cause it is possible that there is some underlying and unknown deficiency. The same applies to diet. The heredity cannot now be altered, but resulting deficiencies both of the long past and of the present diet can be tackled at the same time—that is, by a properly balanced diet of whole, natural, unspoilt, unprocessed, properly grown and properly combined foods. Foods that predispose to catarrhal conditions should be curtailed or even temporarily omitted (*e.g.*, milk). There should be a complete absence of fuss or anxiety on the part of the mother, as this is at once passed on to the child and so aggravates the very understandable nervousness and fear. Misplacements will often respond to manipulative treatment.

A day's fast, followed by two or more days on vegetables, vegetable broth and some ripe raw fruit, such as apples, and thereafter a good natural diet, with milk omitted for a week or two, is a great help.

Bronchitis

See "Coughs and Colds", pp. 173, 174.

Burns

See Chapter XI, p. 188.

Chicken Pox (see also "Infectious Diseases", p. 177)

If there is a temperature the child should be kept in bed and fast for one or two days. Otherwise he can have a vegetable and fruit diet for a week, supplemented after the first week with Muesli, wholewheat bread, potatoes and grated cheese.

Care must be taken to avoid scratching the spots, which can be very irritating. They can be bathed with Epsom salts in water or have calamine lotion applied to help to allay the irritation.

Chicken pox is not regarded as a serious disease, but it can be very uncomfortable for the child, so special consideration is desirable. The spots should leave no permanent scar unless they are scratched or the scabs prematurely removed.

Chilblains

These should be treated both internally and externally. Every effort should be made to improve the child's diet along the lines of increasing the proportion of whole raw foods eaten,

and being sure that one hundred per cent, wholewheat bread is being used, and that the child has plenty of fresh air.

In addition, efforts to improve the circulation should take place. Alternate hot and cold bathing of the feet and hands ending up with cold bathing, followed by a brisk rub with a rough towel, should be done daily. Care should be taken not to rub any actual chilblains. The extremities should then be exercised, clenching and unclenching the toes (or fingers) as hard as possible, then taking each toe separately and rotating it as hard as possible with the hand, first one way and then the other, and finally giving circular rotation from the ankle or wrist. Thick warm stockings should be worn, and stout shoes that are big enough. It is a good plan to wear woollen wristlets all the time, and warm gloves when out of doors, until the blood stream and circulation generally have responded to treatment and cleared up the irritating areas.

Colds, Catarrh, Bronchitis

These three complaints are all very closely allied and unfortunately very common.

The "common cold" is usually the body's first attempt to get rid of some unwanted foreign substances. A certain amount of mucus is the natural lubricant of the internal surfaces of the body, and the body needs some mucus for its efficient functioning. When foreign substances, such as excess of toxins are present in the system, extra mucus is secreted by the system to get rid of these excesses, and such mucus is not the normal clear lubricating fluid, but is a heavy substance overcharged with waste products.

Secreting extra mucus in order to get rid of wastes may be just a temporary process when a person has a cold. If the wastes are persistently excessive the process may become chronic, and the person is then said to have catarrh. Acute or severe conditions of colds and catarrh may extend to the bronchial tubes, when the unfortunate person has bronchitis.

No one, and especially no child, should have the chronic condition known as catarrh. If a child has, then whenever he gets a chill or a cold he is much more liable to develop the serious trouble of bronchitis than he would if normally his system was free from this contaminated mucus.

The correct treatment for chronic catarrh is one day's fast, two or three days on fruits and vegetables, and thereafter a carefully balanced diet, probably omitting milk for some time,

and certainly including a big proportion of properly cooked vegetables, vegetable broth, salads and fruits, with only whole-wheat cereal and some good dairy produce. The fast and fruit and vegetable diet may need to be repeated after three weeks.

The correct treatment for a small child with a cold, or any child with bronchitis, is bed. If there is a temperature a fast will also be necessary; if just a cold, fruit and vegetable diet for a day or two, followed by a carefully chosen diet, may suffice. For bronchitis the length of the fast must depend on the temperature and severity of the complaint.

Coughs

As an accompaniment of colds and bronchitis, or as a symptom of chronic catarrh there can be very tiresome coughing. Sometimes this appears to develop into a habit, and the child coughs almost continuously even when asleep.

It is impossible to go on fasting a child for a persistent cough; it is too lowering. Correct treatment of the initial cold and correct diet to follow will do much to overcome it, and in addition large amounts of natural vitamin C, such as fresh vegetables or fresh orange juice, or other foods rich in vitamin C, such as watercress, are helpful.

Gargling the throat with cold water containing a little sea salt and bathing the neck and chest with cold water also strengthen the throat and are good for colds and catarrh as well. In addition, for all these complaints the child should do deep breathing regularly morning and evening by a wide open window.

Steaming a Cough (particularly helpful in bronchial coughs). If the child is being kept indoors and there is a dry irritating cough, this is often most easily relieved by the method of steaming. To do this, put some boiling water in a good-sized teapot, with the level of the water below the exit to the spout. Add $\frac{1}{4}$ - $\frac{1}{2}$ teaspoonful of Friar's balsam, and wrap the teapot in a warm flannel. The child should sit up well protected with jacket or blankets, and draw the steam from the spout into his throat and lungs by putting his mouth over the spout and breathing in. The spout is often too hot, so it should be wrapped round with several layers of adhesive tape. The air may be too hot for the child to take in large breaths, but repeated little ones are very satisfactory. Five to ten minutes should be spent in this way, and then the neck massaged with camphorated oil or some similar aromatic oil and a light strip of flannel wrapped round it.

Constipation (see also "Constipation in Babies", p. 122)

Whenever food is eaten there is always some residue which should be passed on out of the body. If these residues remain overlong in the intestines endless trouble may arise. For this reason, unless a child has a daily evacuation of the bowels, the conscientious mother is apt to get anxious and to give her child a "dose" of some laxative medicine, *under the erroneous impression that a bowel action brought about by a laxative is as good as a natural one.*

Nothing could be further from the truth. If a child's diet is made up of good, natural, unspoilt foods in reasonable proportions, particularly wholewheat bread, and if the child gets enough fresh air and exercise, then the bowel action follows as a matter of course. If the food is wrong, or if the child does *not* get enough fresh air and exercise, then the laxative medicine does nothing at all to correct these underlying defects, even though superficially it appears to correct the symptom of constipation.

Constipation, therefore, should always be tackled by change in diet and general régime, and not by the taking of "doses". If "doses" are given regularly in childhood the constipation will become chronic and very difficult to overcome.

Diphtheria

As a result of immunization propaganda the fear of diphtheria has become one of the nightmares of parents. It certainly can be a very terrifying and tragic disease, but fear and immunization are not necessarily the wisest ways to combat it. (See "Immunization and Vaccination", p. 164.) In many cases ill-health is the result of diet and deficiencies, and diphtheria is no exception. If a child's blood stream is clean and not suffering from any deficiencies (even of trace elements), there is no reason to fear the child will develop diphtheria in any dangerous form.

Should a child develop the disease, there is no need to panic. Complete rest in bed with water inside and out (including enemas and properly administered cold packs) *from the first moment the disease is even suspected* will help the child's own natural vital powers to surmount the menace to health. The right fruit juice for this complaint is fresh pineapple juice and water, or tinned unsweetened pineapple juice and water, which has a highly beneficial effect when given to a child who is having no other foods whatever.

Eczema

This skin complaint is exceedingly unpleasant and wearing to both mother and baby. Sometimes it seems to be started up by vaccination, and sometimes it seems to run in families. It is often associated with asthma later on. It is a constitutional complaint, and though external treatment may help to allay the irritation, the fundamental treatment must be by diet, to clear the blood stream of impurities and make good any possible contributing deficiencies.

The skin must be re-educated, too, back to its normal excretory functions instead of this abnormal method.

Some foods definitely aggravate the complaint, such as milk, eggs, fish and some acid fruits, but they vary with different individuals. The diet should be strictly a "whole" properly grown and unspoilt one.

For two days the child should have vegetables only (including potatoes cooked in their skins). The vegetables can be conservatively cooked, or suitable ones served as salads—spinach is particularly good. In addition, plenty of good vegetable broth should be drunk, and this should contain both plenty of parsley and plenty of well-scrubbed potato *peelings*.

After two days, real wholewheat bread and butter (see p. 208) can be added, with a little uncooked grated cheese. Instead of meat, fish or eggs, use for a while peas and beans (fresh if possible, otherwise dried or tinned may be used) or lentils. Grapes or ripe raw apples or pears can be taken, but acid fruits such as strawberries and raspberries are best omitted. Oranges vary with different cases. Other foods can then be cautiously reintroduced into the dietary, and any that appear to aggravate any individual child should be omitted.

For *external treatment*, bathe the affected parts with Epsom salts in water (usual strength is one teaspoonful to $\frac{1}{4}$ pint warm water), gently pat dry and then in some cases, if not "weeping," dress with olive, almond or castor oil. For preference do not bandage, but if in some cases a bandage is essential, use as light and porous a bandage as possible, preferably not the adhesive type, over the affected area.

In *small babies*, if breast-fed the mother should go over her own diet very carefully, cutting out all white sugar and white flour and their products, and increasing her consumption of carrots and clear vegetable broth, and eating only one hundred per cent. wholewheat bread. She should also be sure to drink

at least one glass of water during each feeding period, and she should give the baby himself drinks of potato water, and vegetable broth containing both spinach and parsley, as much as he will comfortably take and assimilate according to his age.

If bottle-fed, then as well as having the above drinks, the baby should have his milk mixture considerably weaker than usual for the time being, and the amount of sweetening added temporarily reduced (if white sugar is used, honey or brown sugar should be substituted).

For both breast- and bottle-fed babies it may be a help to omit orange juice for the time being, but diluted fresh apple juice or grape juice or tomato juice are usually satisfactory.

Overfeeding of either baby or toddler will aggravate the complaint, so this must be guarded against, also any tendency to constipation.

Infectious Diseases

There are certain diseases which are easily passed from one child to another. These are called the "infectious diseases of childhood". Chicken pox, measles, mumps and whooping cough are the most common, with diphtheria and scarlet fever more feared but rather less common.

These diseases all conform to a similar pattern. They begin with the child feeling out of sorts, there is usually some rise of temperature, and some specific symptoms, such as the spots of chicken pox, the swollen glands of mumps or the whoop of whooping cough, appear in due course.

Efforts are always being made to truncate these illnesses with injected serums or medicines; but the Simplest, Safest and Shortest method of enema, bath, bed and fasting, as soon as any signs of an infectious disease appear, has yet to be improved upon. It can be applied universally, with equal benefit to children of all ages and to all the infectious diseases, and a point of vital importance is that the mother can (and should) apply it herself, at once, without needing to wait for the doctor's visit.

If the child's alimentary canal is cleansed with enemas and with water to drink, and his skin cleansed with baths, and if the body is kept rested and warm but supplied with plenty of fresh air, then the vital life forces present in all living things are given their maximum opportunity to carry out their own work. Experience has shown over and over again that under these conditions infectious diseases are only of short duration and do not result

in complications or hampering after-effects. The child's recovery is rapid and complete, and mothers often say that their health is better than it was before they had the infectious disease.

It is when the child is given drugs

“to bring down the temperature”

or medicines and injections

“to kill the germs”

or coaxed to eat

“to keep up his strength”

that the illness is often prolonged, and complications and long drawn-out convalescence are apt to follow.

Measles (see also “Infectious Diseases”, p. 177)

Measles is one of the commonest and most typical of infectious diseases. Sometimes the child's temperature rises for a day or two and then falls for a day, and then rises again and the rash appears; so the first drop in the temperature does not mean that the child is ready for food.

If treated according to the principles previously outlined, measles is quite a simple complaint, quickly over, with no complications such as bronchitis or pneumonia.

The eyes are easily permanently damaged during measles, so it is important, even when following the natural method of treatment, to keep the light of the room subdued while there is any temperature, and not to let the eyes be at all strained by excessive reading or fine sewing during the rest of the illness.

The rash is sometimes extremely irritating. This can be soothed by giving the child a bath made slightly alkaline with bicarbonate of soda (or Epsom salts can be used), and also by giving the child a full cold pack.

The tiresome cough is usually best treated with steaming (see “Steaming a Cough”, p. 174), or with alternate hot and cold compress cloths.

Mumps (see also “Infectious Diseases”, p. 177)

This starts with a slight rise of temperature and a slightly sore throat, the glands in the neck and under the chin quickly becoming very much enlarged.

Swallowing is extremely painful, and as in other infectious diseases no attempt should be made to get the child to take liquid food such as milk or gruel. Plain water or diluted fruit or vegetable juices are all that should be taken. Fruit-juice drinks, such as diluted orange or blackcurrant juice, may seem to be

sore to the throat, but unless the child objects to this there is everything to be said for including them. The acute stage should last only a day or two, and if the fasting treatment is followed the swellings will go down very rapidly indeed, with no sign of any complication. As usual, when no food is given, most children will sleep and doze a great part of the day, even though they may be a bit restless for one or two nights.

Operations

Though operations are nowadays most skilfully performed, and the dangers attendant on them are reduced to a minimum, they are still a severe shock to the child's system and can be psychologically very upsetting. For these reasons alone they should always be avoided if conceivably possible.

The commonest operations to which children are subjected are circumcision, removal of tonsils and adenoids, rupture and appendicitis. They may sometimes be unavoidable, but they are bound to be something of a drain on the child's strength, and often "pull him down" quite a lot.

It is an unpleasant sensation coming out of an anæsthetic, and if the child regains consciousness feeling sick, frightened and in pain, with *no Mummy* and only strangers about, he can feel very lost and miserable indeed. Fortunately the child soon forgets, or appears to forget, these unpleasant sensations, but he may protest subconsciously by regressing to earlier phases in his development, by bed-wetting, thumb-sucking, waking and crying in the night, or undue clinging to Mummy, for fear of another separation, etc.

If, therefore, it is possible to arrange for the mother to be present when the child comes round from the anæsthetic, it can be a great help to the child, provided the mother is herself calm and serene and is aware that it will not be pleasant, and that, if it is a tonsil operation, the child's face may still have blood on it, and that in any case the child will probably be crying and miserable and possibly sick.

The habit of some hospitals of not allowing the mothers to visit their toddlers for two or three weeks is a refinement of cruelty that ought never to be permitted, and can have very serious effects on the child's psychological make-up. If any three-year-old is to have, say, a rupture operation, involving a two to three weeks' stay in the hospital the mother should make sure she will be able to visit the child frequently before letting

him go to that hospital. Of course he will cry when she leaves him, but this is a minor evil compared with the child never seeing his mother at all.

Pains

Pains wherever they occur are a danger signal and should not be ignored. If a foreign body gets into the finger, such as a thorn or a splinter, there is pain until it is got rid of. Pain is a sign that something has gone wrong and that some part of the body is not functioning properly, usually because the sufferer has committed an error or a series of errors.

Many internal pains are caused by some foreign substance being in the system and needing to be eliminated.

Unsuitable food will produce stomach pain; faulty methods of eating (such as failure to chew the food properly, over-hasty eating or hopelessly incompatible mixtures) can produce wind, which is a most painful stomach pain; an impure blood stream will produce headaches; accumulated wastes in the intestine may produce bowel pains, and so on.

Treatment consists of getting rid of the offending foreign material as soon as possible and not repeating the errors which produced it. If the pain is at all severe, rest in bed is essential, and usually heat applied to the area of pain is helpful. If there is a marked rise of temperature as well as the pain, it is desirable to seek expert advice, especially if the pain is in the ears or head, or abdomen, but no mother wants to be stampeded into an operation.

Rashes

These may be the result of errors of diet, too much sun, or an infectious disease. In a small baby a rash with *sore buttocks* may be the result of the baby having too much orange juice, too much sugar, or too strong a milk mixture or failure to change damp napkins at every feed.

Necessary adjustments should be made in the diet, whatever age the child is. Where a baby has sore buttocks, the affected areas should be carefully washed and gently dried. Then two squares of soft old handkerchief, about 4 in. × 4 in. should be soaked in olive or castor oil, and placed one on each buttock. The nappy should hold them in place.

Irritating rashes are often helped by bathing with bicarbonate of soda or Epsom salts, and calamine lotion may help a sun

rash, but people who get sun rashes (as distinct from sunburn) usually need diet adjustments (such as cutting out white sugar and white flour, and eating more vegetables).

Rheumatism

Children should never suffer from rheumatism, but unfortunately sometimes some of them do, usually through hereditary weakness combined with lack of ideal feeding.

Such children need the balancing and alkalisng effects of fresh, properly grown vegetables, both raw, conservatively cooked and as vegetable broth to drink, more than anything else, and Yoghourt is a specially good form of milk for them. They also need sunshine and fresh air and one hundred per cent. whole-wheat bread. National bread, reinforced with calcium, is not desirable for them.

Rupture

If a baby's navel protrudes seriously and it is considered that a rupture is present, a good treatment is to cover a small wooden button mould with a piece of lint, put the baby lying relaxed on his back before a feed, and place the button over the navel when in its proper place. The button is then held in position by two strips of elastic dressing crossed over it. This supports the ruptured tissues in the correct position, so giving them a chance to heal and grow stronger, while at the same time it is much less restricting and uncomfortable than a complete rupture belt would be, which is often either too tight or too loose, according to the state of the child's stomach.

Ruptures in the groin do not as a rule lend themselves so easily to this simple type of support, but the object of treatment should be to give them the maximum of correct support with the minimum of discomfort to the child, every effort being made to help the rupture to heal and so avoid the need for an operation.

If the rupture keeps reappearing it retards the processes of muscular closing and strengthening, and with ruptured babies it is particularly necessary to avoid any tendency to constipation or to straining when passing their stools. For this reason vegetable purées and clear vegetable broth to drink are specially advised for cases of rupture.

Scalds (see Chapter XI, p. 188)

Scurf

Apply warm olive oil with a piece of cotton wool, using a light circular motion. Wash off, pat dry, and apply a little more oil as a dressing. See that the diet contains adequate vegetables.

Sickness (see also "Acidosis", p. 167)

If a child overeats, or if he eats some tainted food, or if he eats when overtired or overexcited, the stomach may revolt. It may fail to digest the food and may throw the half-digested and non-assimilable matter back. It is a perfectly healthy process, if very unpleasant while it lasts, often occurring in the late evening or night. Sometimes the child will not clear his stomach at the first spasm of vomiting, and the mother should always be on the alert for a second spasm about an hour later. If this occurs there may be further spasms at intervals. Even if it does not occur quite so soon, there may still be a further spasm, so the mother should remain on the alert.

While the child is retching it is a great help if the mother can get there as soon as possible and support the child by pressing her hand firmly against his forehead to take some of the strain. The child should be encouraged to let the sickness take place and not to try to hold it back.

After the spasm is over the child should blow his nose and have his face sponged with warm water, and then have clean clothes if necessary and a clean handkerchief. Care must be taken throughout to avoid a chill, and an extra blanket and a hot-water bottle should be provided. The child may like a small drink of water. To reassure the child a low light can be left burning and the door left open, also some receptacle conveniently handy in case the sickness returns.

A good general rule is to give no food at all, and only plain water (iced if liked), or sometimes diluted fruit juice, to drink for twenty-four hours after the last bout of sickness. If retching persists, a little white of egg will sometimes allay it, but persistent retching—*i.e.*, vomiting or attempts to vomit for more than twenty-four hours, *when no food either liquid or solid has been given (including, of course, milk or any broths)*—goes beyond the scope of home treatment, and expert advice should be sought.

If there is pain in the abdomen and rise of temperature as well as sickness, again expert advice should be sought, as one inevitably suspects appendicitis (see p. 171).

After a straightforward bout of sickness, whether caused by some particular indiscretion or chill or whether the cumulative results of a period of too rich feeding (which sometimes happens when children go away for a holiday and eat greatly increased amounts of eggs and cream, etc.), the first meals should be extremely simple.

Oranges are often a bit "liverish", and so are not the best fruit to choose, but grapes, ripe sweet apples or grapefruit are excellent and should form the first meal. If none of these is available the child will probably enjoy a little thin toast with Marmite or possibly honey (no butter). Nothing to drink should be taken with this meal, which forms a good second meal if fruit was eaten at the first meal. After this the normal diet for meals can be followed, with slightly curtailed amounts of fatty foods for the following day.

Temperature

Any child with "a temperature" should be put to bed. In very many cases this should be preceded by giving the child a small enema and a warm bath, to eliminate as much waste material as possible; but sometimes, if the child is very tired, it is best to put him straight to bed, and the enema and bath can be given later, or possibly omitted if there is acute abdominal pain.

When the child has a temperature it is a sure sign that the system is not working normally, so it should not be expected to carry out its normal function of digesting and assimilating food; *i.e.*, the child should have a fast. Plain water or well-diluted fruit or vegetable juices are all that should be given, and the child should not be coaxed to drink milk or gruel, etc.

If this treatment is followed out at the first sign of a temperature much further trouble is saved, and the severity of many infectious diseases reduced to a minimum.

Sometimes children develop a temperature through "nerves" or excitement. With this type of child the mother must rely very largely on her knowledge of her child and her own judgment, since it is rarely desirable to give a child repeated fasts for nerves of this sort.

If a child persistently runs a low temperature the mother must realize the possibility of some chronic trouble needing expert advice. Infectious diseases often show their first sign by a

slight rise of temperature, which gets higher in the course of the next few days. It is therefore wisest for the child to refrain from all food when the temperature first rises above normal, even if it does not at first exceed 100°.

On the other hand, if the temperature has been high and is coming down but has not reached normal, it may be desirable to give the child some food, such as ripe grapes or vegetable soup, even if the thermometer does not register normal, if the fast has lasted more than three days. When a child has had a temperature and has abstained from food for a few days, the temperature usually registers sub-normal for a day or two before it returns to normal. After a temperature and fast for more than one day, great care must be taken to avoid overdoing things or doing too much too soon.

Tonsils

See "Adenoids and Tonsils", p. 170.

Whooping Cough (see also "Infectious Diseases", p. 177)

This can be a very exhausting complaint, and with small children it can be dangerous. The usual action is to try to feed up the child to keep up his strength, and to compensate for the sickness that so often accompanies bouts of coughing.

However, if the child is treated according to the principles previously outlined very little sickness, if any, will occur.

Vegetable broth, conservatively cooked vegetables, raw salads and ripe raw fruits can be eaten freely by the child, and rarely result in any sickness even when the child coughs. These foods help the body to get rid of any accumulated poison, and their assimilation does not produce much more waste of this type, so there is little urge for the body to continue to produce the ghastly mucus which so often accompanies whooping cough. These foods also help to make good any of the deficiencies that probably exist in the child's system.

Onions are a particularly valuable vegetable during whooping cough, and so is garlic itself. Garlic can be usefully absorbed if put in the child's shoes under a layer of paper. Oil of garlic is also obtainable in capsule form and sometimes this proves helpful. But the real cure must lie in cleansing the system of the conditions that favour disease—that is, by clearing out any foreign bodies, such as toxins, and by reinforcing the body's own defences with whole, natural, unspoilt, properly grown fruits and vegetables.

After a fortnight on fruits and vegetables only, real one hundred per cent. wholewheat bread can be added, also potatoes cooked in their jackets and a *little* dried fruit such as dates and raisins.

Milk, eggs, meat, fish, cakes and puddings, etc., should all be omitted while the cough is serious, usually for at least four weeks, and, if the cough is still troublesome, for six weeks.

Usually if this treatment is followed the trouble will clear up after four weeks, and not hang on for months, as so often happens if the mother "feeds her child up" during the course of the disease.

Worms

Parasitic threadworms are a much more common complaint among both children and adults than many people realize. The only permanent cure for this is to get the child's system in general, and the alimentary canal in particular, into a really well-balanced and actively healthy state, so that the conditions are not favourable to the life of such parasites, and any eggs that are taken in are automatically immobilized and excreted before they can develop. Catarrhal conditions favour their existence, so a general clearing of the whole system (see p. 149) followed by a whole unspoilt natural diet is the method of treatment.

In addition, to wash out both worms and eggs, an enema of about one pint of salt and water (one teaspoonful of salt) or quassia water should be given nightly for ten days, omitted for three and given again for another four days. A drink of freshly made raw carrot juice or fresh blackcurrant juice and lemon juice and honey in water or crude molasses in hot water first thing in the morning is a help.

Powerful drugs to kill the parasites are not desirable. If strong enough to kill the parasites, they are also strong enough to be harmful to the child. In any case they are seldom satisfactory as their effect is not lasting, since they do nothing to eradicate the *causes* that allow the parasites to flourish. Many living things, both plants and animals, become more susceptible to parasites of all kinds when suffering from deficiencies of trace elements due to faulty food. Hence the need for a whole unspoiled diet as outlined previously for all children suffering from worms.

CHAPTER XI

CHILDREN AND ACCIDENTS

General

A careless disregard for bumps and tumbles is a useful attitude to cultivate in children, but where the skin is grazed or cut, and especially if the wound is dirty, they should be taught to apply proper treatment at once. Disinfectants have a very strong hold on the public generally, particularly in the case of children's cuts, so much so that the immediate application of a good strong germicide is often the first treatment given, rather than a good strong wash; yet a thorough washing of any dirty wound is of far greater importance, and far more likely to lead to rapid healing than the application of any germicide.

There is no doubt at all that disinfectants delay healing, possibly in proportion to their strength, because though they will kill the bacteria introduced into the wound through the accident, they will also kill the beneficial internal bacteria belonging to the body, and disinfectants, being themselves "foreign bodies" as far as the child's system is concerned, will hamper, and get in the way of, the body's own natural curative processes.

In dealing with children's minor accidents three things—

- (a) water,
- (b) air,
- (c) rest,

should always be utilized to the utmost in bringing about a rapid cure. These are, of course, three of the same things that were advocated for ill-health, and so fit into the scheme of natural treatment here advocated. If these three agents are properly used there is usually little need for any other types of treatment, and the wounds heal rapidly and completely, especially when the child is habitually fed on whole, natural, unspoiled foods, so that the blood stream is clean and active and well supplied with its own healing force.

Shock

In all cases of accidents to children it is important to remember the danger of shock. For really minor accidents this is negligible, even for small children, who should not make a

fuss about their hurt. But if the damage done is at all serious, or if it happened in a serious kind of way, then it is wisest to take precautions against shock.

The three things to use here are:

- (a) warmth,
- (b) rest,
- (c) little or no food.

Before treating the wound it may be wisest to put the child's coat or sweater on, and once the wound is cleansed and bandaged the child should be put to bed for a rest (not necessarily undressed) with a warm rug and a hot-water bottle, if there is any sign of shock or strain or if the accident itself has been of a serious or frightening type, even if the actual wound is less serious than might have been feared. The rest need not be very long, but if the child has lost his colour or shows signs of chilliness or cold sweating, then the rest should be prolonged. This helps to avert the risk of the child being inexplicably tired or exhausted the following day, or even of being quite ill.

If the injury is serious enough to demand treatment for shock, then the child is probably better without solid food, and so should very likely miss the next meal, or most of it; but a drink of clear vegetable broth, vegetable broth and milk, diluted fruit juices or hot honey tea can be offered at once and is often very acceptable. If the child falls asleep so much the better, and he should not be awakened.

Abrasions

Grazed knees are very common among small children, particularly boys. Scrapes of this sort should be well washed with warm water, using a good soap if liked, and carefully inspected to see that all bits of gravel are removed, and finished off with cold water. They should then be patted dry. If only slight, no further treatment should be necessary as the free access of air will help to dry up the surface and so speed up the growth of new skin underneath. If the abrasion is dressed with disinfectant ointment, even after thorough washing, it tends to keep the surface moist and wet, with a certain amount of exudation, and so healing is apt to be delayed unnecessarily. If the area is large and the abrasion deep, then some sort of dressing may be necessary, both to avoid further damage to the sensitive skin and to prevent fresh dirt from getting in. The dressing should, however, be light and porous. Though elastic adhesive tape

with a bit of dressing attached is exceedingly convenient, and invaluable to protect small hurts from repeated further damage, it can in some subjects prove to be altogether too impervious to air to be a desirable covering for a large area, particularly if the adhesive tape goes all round the dressing and not just on two sides of it. Such a dressing, which prevents the normal evaporation of moisture, may cause an abrasion to go septic, which would not have happened had not all air been excluded.

For this reason it is often preferable, if less neat, to cut a square of plain lint large enough to cover the wound completely and to hold it in place with two strips of Elastoplast crossed in the centre and coming over the corners of the square. To prevent this from sticking to the raw surface of the abrasion, a *little* plain vegetable oil can be put on the lint. Some exudation is almost bound to take place from the surface, but with the free access of air under this loosely applied dressing it is unlikely to be much and will soon dry up.

Blisters

Sometimes a new shoe or a long walk will produce a blister on a child's heel. This can be well bathed with warm water and then with cold. The blister should not as a rule be pricked but should be covered with a dressing. In this case Elastoplast with dressing attached should be applied as firmly as possible (for preference, without Elastoplast all round, but only on two sides of the dressing) and a sock worn on top to help to keep it in place. A *different* pair of shoes or sandals should be worn until the blister is better.

Bruises

Bruises vary enormously in severity, from a slight lump to a really painful contusion. Slight lumps should merit little attention, but a severe lump can be eased if bathed with cold water immediately, and if necessary have a cold compress put on it. A very painful type of bruise is a trapped finger. This is most successfully eased by putting it into water as hot as the child can bear it and holding it there, adding more hot water as the water cools. It should then be put into cold water, and a cold compress can be put on if necessary.

Burns and Scalds

These vary enormously in severity, both as regards the area of skin damaged and the depth to which the burn extends.

If the burn or scald is at all severe, shock treatment should be applied at once and expert advice obtained.

For minor burns or scalds probably the most comforting home treatment is to apply moist bicarbonate of soda to the affected area, keeping the air away from it by a dressing of a piece of lint soaked in a solution of bicarbonate. If applied at once this is marvellously effective and takes away a great deal of the pain. If a small child gets a serious scald it is probably wisest to put him straight into a warm bath of bicarbonate of soda, as this treats him for shock at the same time as treating the burn. The water must neither be too hot for comfort nor be allowed to get cold so that it is chilly.

If blisters occur they should not be cut or pricked in home treatment.

Cuts

Cuts, whether large or small, should always be thoroughly well washed. If bleeding is severe, cold water will help to check it. If an artery has been cut, bleeding must be stopped by pressure at the appropriate point. Childish accidents, however, are seldom as serious as this.

When the cut is clean the important thing is to ensure that the cut edges will join together again as quickly as possible, with the smallest possible scar. Disinfectants put into the cut tend to delay healing and to increase the scar.

There should be no need for stitches even with a severe cut, if the mother is skillful. It is possible to cut non-elastic adhesive tape just the shape of a capital "I" with extra large top and bottom and shorter centre pieces. Several of these should be prepared, and then the cut should be placed in the position that naturally tends to close it most, and these pieces of adhesive tape should be applied across the cut, drawing the edges together just like stitches. The tops and bottoms of the capital "I" should stick securely to the undamaged skin beyond the cut, and there should be just the thin short centre pieces of the "I" coming across the cut itself. The ends of these "stitches" should be held firmly in place until they are securely attached, when they can be left on until the cut has healed. Air can still get to the cut, and its progress can be observed. If the cut is deep and in a place where there is normally a lot of movement—*e.g.*, a boy's knee—it may be desirable to put the knee in a splint for a day or two, to ensure proper rest to the damaged area and to allow the cut edges to knit together again. If there is continual move-

ment the cut gets a much reduced chance of joining up quickly and the scar is apt to be increased. Small cuts can just be protected for a day or two with plain adhesive tape over them.

Scalds

See "Burns", p. 188.

Sprains and Strains

Whether a sprain is severe or slight, the best treatment is shock bathing in alternate hot and cold water. There should be two basins, one containing water as hot as can be borne and one containing cold water. The injured part, usually the foot or ankle, should be put into the hot water for two or three minutes, then put into the cold for about half a minute, and then returned to the hot water, the temperature of which should be maintained by the regular addition of more very hot water. The treatment should finish with an extra long period in the cold water, and the foot should then be bandaged with a cold-water bandage, supported in the normal standing position—i.e., at right angles to the leg and not at all stretched out. The bandage should be kept wet and cold by renewal or the addition of more cold water. The shock bathing can be repeated as desired.

Unless the pain is so severe that it is feared a break may be present, it is wisest in the case of most strains for the child not to lie up entirely, but to continue to use the limb a little, progressively using it more and more. If it is very painful when in bed, the foot or knee can be raised on a little cushion, the weight of the blankets if necessary being taken by some sort of improvised "cradle".

Stings

Some people suffer much more severely than others when stung by a bee or a wasp, and children particularly are apt to feel quite badly hurt (and annoyed) when stung. If the sting is left in it should at once be removed, but in removing a bee sting special care needs to be used to avoid pressing more poison into the wound from the little poison sac attached to the sting. It can be pressed out sideways with the thumbnail, rather than be pulled out. If possible, pinch the area upwards between the thumb and forefinger and press or suck out some of the poison, hold under a tap of running cold water, and then apply ammonia or bicarbonate of soda to neutralize the formic acid. Much of the trouble, however, is caused not by the acid but by certain poisonous alkaloids, which are little affected by the soda.

A good old-fashioned homeopathic remedy for bee stings that works amazingly well with some people is to rub a little honey into the puncture. The stings should preferably not be covered up. If in the mouth or on the face stings are more serious and the patient may need treatment for shock, and it may in some such cases be necessary to call a doctor.

Sunburn

Treat with bicarbonate of soda as for burns (see also p. 86).

Sunstroke or Heatstroke

Severe headaches or sickness or exhaustion may follow exposure to the sun or considerable heat.

Complete rest in a semi-darkened room, with plenty of fresh air circulating freely round, is needed. A cold water compress or an ice compress over the forehead and eyes and back of the neck helps. No food should be taken, but an enema may sometimes be given with advantage, and water given to drink. Heat applied to the feet may prove helpful. After a child has once suffered from sunstroke he will become more susceptible to the sun than formerly, and so extra care must in future be taken to guard against excessive sun, and the child should normally wear a sunhat when out in the sun.

CHAPTER XII

DETAILS OF PRACTICAL TREATMENTS

(1) Giving a Child an Enema

REASONS FOR ENEMA

The idea of giving a child an enema is simply to rid the lower bowel of accumulated fæces *as quickly as possible when the child is ill*. If the mother waits until her sick child has failed to have a bowel action for a day (or even two) and then gives a dose of some laxative medicine, it may easily be a further twelve hours before the bowels make a violent reaction to the "laxative" and eject the accumulated fæces. Meanwhile, all the time that that accumulated waste has been present in the bowel it has been a source of poison to the child's system, and has aggravated whatever form the child's ill-health has taken. Further, when a child is fasting, the normal reactions in the alimentary canal do not take place, but waste matter from all cell tissues may be present in it, and because there is no bulk of waste, as when eating food, to stimulate the peristaltic action of the intestines, these wastes must be washed out if the body is not to reabsorb them.

The enema is also valuable for removing parasitic worms and their eggs, but it is not by itself a "cure" for anything. It is just one section of a curative process, and should never be used habitually.

APPARATUS

A gravity douche is probably the easiest and most comfortable type of enema to use. It consists of:

- (a) A container for water.
- (b) A rubber tube coming from the bottom of it (about 4-6 feet long).
- (c) A nozzle and a tap, or some sort of clip to shut off the water.

One also needs a pot of vaseline and a bedroom chamber.

The solution enters the system in a steady gentle flow by the force of gravity only, and the pressure of the flow, and consequently the speed at which the water enters, can easily be controlled by the tap.

Alternatively, a bulb enema can be used, but is less easy for the amateur to manage successfully, and less easy to administer to oneself in the correct position.

Types of enema in which the water is forced upwards into the rectum by the patient sitting on them are working against gravity, and the patient tends to be tensed rather than relaxed while receiving them. They are not considered suitable for children, though some adults use them for themselves.

SOLUTIONS

For normal purposes plain warm water is all that is needed. It should be at blood heat or cooler. For worms, salt and water (one dessertspoonful of salt to one pint of water) is better than plain water, or a solution of quassia can be added to the water. 1 oz. quassia chips should be put in $\frac{1}{4}$ pint of cold water and brought slowly to the boil, and then allowed to cool. Then add 2 oz. of the decoction to the enema water.

The usual soap-and-water enema is not advised, as it can be irritating to a sensitive mucous membrane and make the enema much more unpleasant than there is any need for it to be. This is very important when dealing with a sick child.

POSITION

There are several suitable positions for the child to take up for an enema:

(a) Kneeling on the floor, with the face or forehead and forearms on the floor (or a cushion if liked) and the buttocks raised as high as possible.

(b) Lying on the left side, either on the floor, or on the bed, with the hips bent at right angles. If ill or nervous, lying in bed is probably the best place to give the enema, with a towel folded under the hips and a blanket covering the child loosely. However, a child may sometimes feel strongly against having it in bed (possibly because of early training in cleanliness), in which case even a sick child can have it on the floor, if preferred; but he must wear a sweater and be warm and out of draughts.

(c) Babies and toddlers would usually have a small 2 oz. bulb enema when on their mother's knee, either lying on their back with their feet lightly supported by the mother's left hand in a vertical position, or lying on their front with their legs hanging down to the floor.

In all cases the child should be fully relaxed.

QUANTITY

The quantity inserted must vary with the age of the child. About 1-2 pints is a good average, but babies would only have about 2 oz. If there are fæces present in the bowel it is not possible to let a full pint run into the rectum without causing the child pain. In such cases $\frac{1}{2}$ pint, or even just $\frac{1}{4}$ pint, should be allowed to flow in, and the child should sit on his chamber and evacuate the bowels. The rest of the enema can then flow in much more easily. This is a very good way of cleansing the bowel, but may be more tiresome to the child.

PAIN

It is not desirable that the quantity of water used or the speed at which it flows in should cause distention of the bowel at any point, so that if the child is suffering pain this is a danger signal, indicating either that enough water has been passed in, or that it is flowing in too rapidly, or that there are some hard fæces impeding its flow, indicating the need either for a slower flow or for giving the child an opportunity to empty the bowel before continuing. In some cases it may be best to give the enema in three sections, not only two.

PROCEDURE

If the child has never had an enema the value of an "internal bath" should be explained to him (according to age), and the child should be allowed to play with the enema and turn the tap off and on and so on. If at all possible all this should have been done when the child was quite well, not ill.

The mother should also have given herself an enema privately beforehand, so that she knows what it is like, and feels confident and competent to carry out the simple processes without risk of communicating nervousness or anxiety to her child.

The enema should first be filled with about 2 pints of warm water, and hung in a convenient place about $2\frac{1}{2}$ -3 feet above where the child will receive the enema. The nozzle should be well covered with vaseline.

The child should then be put in the right position, the mother doing all she can to gain the child's co-operation, but also being confident and firm enough to convey to the child that she knows what she is doing and that nothing will be gained by making a fuss. The enema can hardly be other than unpleasant and undignified, but so is ill-health, and the child should be able to understand that the enema is a useful step back to health.

When the child is 'ready, the tap should be opened and a little water allowed to run into the chamber, to make sure the vaseline has not closed the opening and to run off the first few cold ounces. The tap should be closed and the nozzle put just to the anus, and then either gently inserted and the tap turned on, or the tap can be turned on as the insertion takes place to facilitate entry. There is *plenty* of room for the nozzle as the tissues are very elastic, but care must be taken to get the nozzle in exactly the right place, and not to push against the surrounding tissues instead of the aperture itself.

The flow can very easily be controlled by pinching the tube.

If constipation is known to be present, probably only a small amount of water can flow in easily at first, so the tap should be closed after $\frac{1}{4}$ or $\frac{1}{2}$ pint has been run in, and the bowels emptied. After this a further $\frac{1}{2}$ -1 pint can be run in.

When sitting on the chamber the sick child should be wearing a jersey and dressing slippers, and should have a blanket thrown round him as well. An older child should be left alone while emptying the bowel and told to call when ready, the mother remaining within earshot.

It may take some little time to empty the bowel.

Another point is that after an enema some of the fluid is retained in the body. Allowance for this should be made, as in some cases, but by no means all, the child may have an accident in bed after the enema, and either wet or soil his garments. Both mother and child should be prepared for this and should realize that it is the result of the enema, and not of any "naughtiness" on the part of the child.

FREQUENCY

The enema must never become a habit. It can be given as soon as the mother realizes her child is ill—i.e., at a rise of temperature—and again the same evening and each evening thereafter while the child is fasting.

It can be given when *not* fasting, if the child has worms, and it may be given also to relieve a headache if constipation is thought to be present. But it should not be a routine treatment for constipation, nor should it be given as a weekly, monthly, or quarterly routine, like washing the hair on Friday night or the weekly "dose" of our grandmothers' days.

MOTHER'S ATTITUDE

As in all things the child takes his line from his mother so she should be perfectly matter of fact and detailed and scientific.

She should be gentle but firm. Any tentativeness makes it difficult for the child to behave normally. Above all things the mother must not be in the least shamefaced about it. The bowel is very close to the sex organs, and preoccupation with the enema or tentativeness or nervousness about it, especially if the child's sex education lacks any openness, may cause the enema to become associated with sex. This is highly undesirable.

At the same time an open and scientific attitude should not mean any violation of the child's sense of privacy and self-respect. In no circumstances should the use of the enema be discussed in front of the child with the mother's friends, and if the child greatly dislikes the enema its use should not be discussed even in his absence with the parents or the child's own friends. Such reticence may make propaganda of this form of treatment difficult, but it can be hard for a schoolchild if his associates jeer at him or make a joke about his having enemas, and the mother must recognize this possibility, and her responsibility and duty to her own child must come first.

(2) Giving a Child a Sitz Bath

Sitz baths can be given hot, warm or cold

There is seldom an occasion to give a child a cold sitz bath, but a hot sitz bath is useful to:

- (a) Induce perspiration in cases of fever.
- (b) Induce sleep and relaxation.

APPARATUS

Few people will have an actual sitz bath in the house, but one can be improvised from.

- (a) Ordinary bath.
- (b) Planks or rods (or bamboo sticks) across it.
- (c) Very hot water.
- (d) Blankets.
- (e) Additional hot soft blanket.
- (f) 3-5 hot-water bottles placed ready in the child's bed.

PROCEDURE

Hot water is put in the bath, deep enough to reach nearly up to the child's navel when sitting in the bath with knees bent up out of the water. The water should be as hot as the child can comfortably bear it. Planks should be placed across the bath at both ends.

The child should sit in the bath, well away from the taps, with one or two planks both in front and behind him. Two or more blankets are then put over the planks, bath, and shoulders of the child, so that he is warmly blanketed right up to his chin. He is then sitting in a tent of steam, and there should be no cracks or gaps for the steam to get out or cold air to get in.

As the child gets used to the heat and as the water tends to cool, more hotter water should be added, either from the tap, if hot enough, or from a can, care being taken to stir it in to the bath water well away from the child's feet. .

It is usual for a hot sitz bath to last from ten to twenty minutes, and the upper portions of the child's body, though not in the water, should be thoroughly damp from steam and perspiration. The bath is thoroughly relaxing, but the length of time any individual child should stay in it cannot be given definitely. The mother must herself be there all the time, and must watch and see that the child is not finding it over-exhausting. If a child had a weak heart, for instance, a hot sitz bath might be contra-indicated.

When the child has been in the bath long enough the mother should lift him out, blankets and all, and with the child holding the blankets round him she should dry him gently but very speedily. She should then take her additional soft blanket, which has been warming in front of a fire, and put it over the child's shoulders removing the damp blankets from underneath. Wrapping the warm blanket firmly round the child, she should carry him straight to his bed, adding a further blanket for the journey from the bathroom to the bedroom. Leaving the child still wrapped in the first blanket, she should tuck him up in the well-warmed bed, putting extra covers on to induce perspiration, and leaving hot-water bottles (well protected) in the bed at his feet and at each side of him.

The child should feel thoroughly relaxed and will probably drowse or fall completely asleep. When he wakes up, or after about $\frac{1}{2}$ -1 hour's rest, if not asleep, he should be quickly rubbed with a warm soft towel. Warm clean night attire should be put on, and the enveloping blankets removed. The bed and blankets may feel damp, and in any case it is a good idea, if convenient, to transfer the child to a fresh warm dry bed. He will very likely then fall asleep, if he has not already done so, but in any case he will probably be ready to continue resting peacefully and quietly.

It is easier to carry out this treatment with the necessary speed, but without any haste or fuss, if the mother has some other adult to help her.

The child can with advantage have a drink of hot clear vegetable broth before he finally settles down.

(3) Giving a Child a Hot Pack

Hot packs are a most valuable aid to relieving pain and reducing congestion. Poultices and hot fomentations are both forms of hot pack. It is possible also to buy impregnated wool or other preparations to give a similar effect of maintaining moist heat at and around the painful or affected area.

Hot packs are useful for:

- (a) Sprains.
- (b) Poisoned cuts.
- (c) Obstinate or septic splinters.
- (d) Earache.
- (e) Abdominal pain.
- (f) To induce sleep and relaxation in ill-health.

APPARATUS

- (a) A piece of soft blanket or flannel
- (b) A large strong piece of sheet for wringing.
- (c) A warm dry covering blanket.
- (d) Bandage and pins.
- (e) Boiling water.
- (f) Large basin or bath

PROCEDURE

The strong sheet is spread over the basin and the soft blanket is folded in three or four thicknesses, when it should still be large enough to cover the painful area and the tissues immediately surrounding it.

Boiling water is poured over the folded flannel, and the sides of the sheet are then folded over and the two ends are wrung as hard as possible to squeeze the piece of blanket in the centre dry. This is then taken out and put on the affected area as hot as is comfortable (with children this is not very hot, but the drier it is wrung the better they can usually bear it). It is then immediately covered up with a warm dry piece of blanket and held in place by a bandage and pin.

For earache the bandage and pin are probably unnecessary if the child's head is wrapped in a loosely knitted woollen shawl.

For abdominal pains, the child should be lying on his back on a warm dry strip of blanket long enough to tuck over on both sides. The hot pack should be large enough to have three thicknesses of it reaching from the ribs to the groin and rather more than the full width of the abdomen. The hot pack is placed on the child's abdomen, and the strip of blanket on which he is lying is then tucked over, first from one side and then from the other, pinned in place, and the bedclothes at once drawn over.

To induce sleep or relaxation the child should lie on his front with his head turned slightly to the side, and the hot pack should be applied the full length of the child's spine right up to the nape of the neck and be held in place by an enveloping blanket similar to that for the abdominal pack. A strip of flannel may help to hold it to the back of the child's neck, but this may be more uncomfortable than it is worth; if the bedclothes can be tucked round to do the same job that is quite satisfactory.

Children's skins are very sensitive, so *packs must not be too hot*, since they are not meant as an endurance test.

(4) Giving a Child a Cold Pack

Small cold packs are often used to relieve sprains and bruises, but they are also helpful in ill-health to help in the elimination through the skin in infectious diseases and where there is a temperature, and also to relieve coughing.

The child can have either a full body cold pack for a temperature or a local cold pack round the neck for a cough. With the latter it is often desirable to give a small abdominal pack as well, otherwise the reaction may be too violent.

APPARATUS

- (a) Piece of soft old sheet of suitable size.
- (b) Warm blanket of suitable size.
- (c) Cold water.
- (d) 5 hot-water bottles *in covers*.
- (e) Blankets.

For a full body pack the piece of sheet should be wide enough to reach from the child's armpits to his feet when folded lengthwise and long enough to go at least twice round the child's body.

PROCEDURE

Two people should co-operate to apply this treatment.

The sheet should be folded lengthwise and thoroughly soaked in cold water and squeezed out. Hot-water bottles should be filled ready, and a blanket put to warm.

One person should lift the child out of bed, in a warm room with the windows closed, remove his night attire and steady the child on his feet. The other attendant then deftly wraps the wet sheet round the child and immediately wraps the warm blanket on top of it. The moment of contact with the wet sheet will probably cause the child to shudder, but the cold feeling passes very quickly.

The child is then lifted straight back into bed, with one hot-water bottle at his feet and two at each side. Another blanket is laid directly over the child and tucked close round his neck, to prevent any cold pockets of air. The bedclothes are drawn up, and several extra blankets or an eiderdown are added to induce perspiration.

The child will very likely fall asleep, and if so should be left undisturbed till he wakes, but someone should be at hand to attend to him as soon as ever he does wake.

If he does not sleep he should be relaxed and dozing for $\frac{3}{4}$ -1 hour, after which he should be unwrapped from the pack and rubbed dry, and warm dry night attire put on, and either transferred to a warm dry bed or have fresh warm dry sheets and blankets quickly put on his own bed.

Again he should feel refreshed and relaxed, and will very likely doze off to sleep again.

For applying a cold pack for a cough the general procedure is just the same, but the piece of wet sheet round the child's neck must not be too large, nor should the covering piece of blanket be too cumbersome for comfort. The compensating abdominal pack should just go round the abdomen, not the whole body, and only two or three hot-water bottles are likely to be needed.

APPENDIX I

RECIPES

The following recipes are selected from "*Health for All*" *Ration-time Recipes*, by the same author, as a help to mothers, being specially suitable for children. Space forbids the inclusion of many others which are also suitable for children, so readers wanting further suggestions are referred to the above book.

Apple Juice (Raw)

Ripe sweet apples.

Wipe the apples and cut away any damaged parts and put through a juice press, or grate on to a piece of strong freshly scalded cheese cloth, fold over sides and twist ends as for a hot fomentation. Serve at once in wine glasses.

Bran Parkin

4 oz. medium oatmeal.

2 oz. cleaned bran.

$\frac{1}{2}$ cup black treacle.

4 oz. seedless raisins (or chopped dates).

$\frac{1}{2}$ teaspoon ground ginger.

1 made-up egg.

1 oz. wholewheat flour.

3 oz. cooking fat.

$\frac{1}{2}$ teaspoon cinnamon.

$\frac{1}{2}$ teaspoon mixed spice.

1 oz. sugar.

Melt fat and syrup slightly. Mix dry ingredients and stir in fat, treacle and beaten egg. Put into a greased tin and bake in a very slow oven for about two hours.

Cabbage Cooked Conservatively in a Saucepan

(Care is needed to avoid burning.)

1 good cabbage.

$\frac{1}{2}$ oz. margarine.

2 or 3 tablespoons vegetable

stock.

Wash the cabbage, remove outer leaves and cut away the coarsest stalks. Quarter the cabbage, remove centre stalk and shred finely, cutting both across and along. A little practice soon makes this easy. Melt margarine in pan, add shredded cabbage to which a certain amount of moisture clings and stir and shake over gentle heat for two to three minutes. Add stock, cover closely and cook gently until tender (about 10 to 15 minutes longer), shaking at intervals to prevent burning. When tender chop with two knives in pan and serve at once.

There should be practically no stock left when done. Any that there is should be used for sauce.

Suitable also for broccoli, brussels sprouts, red cabbage, cauliflower, celery, kale, leeks, marrow, savoy, spinach (no stock needed) spring greens, turnip tops.

Caravan Biscuits

4 oz. wholewheat flour.

4 oz. rolled oats.

2 tablespoons sugar.

Chopped nuts.

4 oz. margarine.

4 oz. cold mashed potatoes.

Few drops almond essence.

Rub fat into flour. Add rolled oats. Add almond essence to

potatoes and sugar, and work all well together. Roll out $\frac{1}{4}$ in. thick, cut into biscuits and sprinkle with chopped nuts. Bake in slow oven until faintly golden brown.

Carrots Cooked Conservatively in a Saucepan

1 lb. carrots.

$\frac{1}{2}$ cup vegetable stock.

$\frac{1}{2}$ oz. margarine.

Scrub carrots thoroughly, cutting out any bad parts and cutting out all grub holes to the very end. Cut off the very tip and see if there are any suspicious holes there.

Cut carrots up into small pieces (about $\frac{1}{4}$ inch). Melt fat in saucepan, add carrots, cover and shake over gentle heat for 1-2 minutes. Add stock, cover closely and cook gently for about half an hour, stirring and shaking occasionally to prevent burning. Add more stock if necessary. There should be little or no stock left when done. Any that there is should be used for sauce. Other root vegetables can be cooked in the same way.

Carrots (Grated, Raw) and Flakes

Carrots.

Milk or top milk

Breakfast flakes.

Thoroughly scrub some fresh, good-quality carrots, cut off the tips, remove all blemishes or eyes and see that the carrot is absolutely clean.

Just before serving grate on a two-way grater. Serve in a fruit saucer with breakfast flakes on top and some milk poured over.

(The quantity given must depend on the individual child, but the proportions are usually 1 tablespoonful of grated carrots to 1 tablespoonful of flakes.)

Carrot Juice (Raw)

$\frac{1}{2}$ lb. fresh juicy carrots

2 tablespoons cooled boiled water.

1 piece strong butter muslin, about 10 in. by 8 in.

Scrub carrots very thoroughly, and cut out any discoloured parts, entirely removing any grub holes, as carrots sometimes have grubs in them and the grubs are generally at the end of the holes. Dip the carrot into boiling water for a second to cleanse. Then grate into dish, add 2 tablespoons water, stir together and put on to a piece of butter muslin, freshly wrung out of boiling water and placed in a pie dish. Fold over the sides and twist the ends as for a poultice. The juice pours out. If much is to be made it may be simpler to put the grated carrots into a potato masher and squeeze out that way.

Cheese (Cream)

2 oz. finely grated cheese (ordinary ration cheese is quite suitable).

Milk.

Parsley or mint or marjoram

Put the grated cheese in a bowl and add milk, a very little at a time, beating with a fork until it is smooth and the consistency of cream cheese.

The addition of finely minced parsley or mint or marjoram gives variety.

Useful for sandwiches or salads or for stuffing tomatoes.

Cheese (Curd)

Sour milk.

Keep a little unpasteurized milk in a warm place until it is curdled and set solid. (It is also excellent eaten in this stage.) Put the curd in a clean cloth and hang up to drain. Scrape off the curd, which may be flavoured in various ways:

- (1) With a little Yeastrel.
- (2) With a trace of chopped chives or other herbs.
- (3) With minced parsley and a spoonful of top milk.
- (4) With raw carrot juice.
- (5) With raw tomato.

Cheese Potatoes (Baked)

4 large potatoes.

1 oz. margarine.

4 oz. grated cheese.

Scrub potatoes very thoroughly, and bake in jackets until soft (about one hour). Cut in half, scoop out all the potato and mash well with the margarine and grated cheese. Refill cases with this mixture, and return to oven to heat through and brown on top.

Cheese Sandwiches (Toasted)

(See also Date Sandwiches for alternative method.)

8 very thin slices of wholewheat bread and margarine

Thin slices of cheese.
Yeastrel.

Cover four slices of bread and butter all over with thin slices of cheese. Spread the other four slices thinly with Yeastrel. Cover cheese with these, press together and toast sandwich to golden brown on each side. Serve at once on hot plates.

Chocolate Buns

3 oz. margarine.

2 oz. Bournville cocoa.

4 oz. sugar.

A little milk

2 eggs (made up).

$\frac{1}{2}$ teaspoon vanilla essence.

6 oz. wholewheat flour.

1 large teaspoon baking powder.

Beat sugar and margarine to a cream. Add well-beaten eggs and vanilla essence and beat very thoroughly. Mix cocoa, flour and baking powder together, and beat into mixture, add a little milk. Beat up and place in well-greased patty tins.

Bake in fairly quick oven for 15 to 20 minutes.

Chocolate Cream

1 oz. chocolate.

1 egg.

Melt chocolate until just soft. Separate egg yolk and white. Beat egg yolk well and stir into melted chocolate. Beat white very stiffly and fold into chocolate mixture.

Use to decorate little cakes, junkets or blancmange or on biscuits.

Chocolate Junket

1 pint fresh unpasteurized milk.

1 teaspoon rennet.

4 dessertspoons Cadbury's Bournvita.

Warm half pint of milk, fairly hot, but *not* boiling. Stir in Bournvita and beat well. Add rest of milk. Bring to blood heat, add rennet, stir well, pour into glass dish and leave to set.

Christmas Cake

- | | |
|--------------------------------------------|--------------------------------------------|
| 10 oz. 100 per cent. wholewheat flour. | $\frac{1}{2}$ teaspoon bicarbonate of soda |
| 2 oz. seedless raisins or sultanas. | (level). |
| 4 oz. chopped seeded raisins or dates. | $\frac{1}{2}$ cup milk. |
| 4 oz. cooking fat. | $\frac{1}{2}$ teaspoon almond essence. |
| 4 oz. sugar. | $\frac{1}{2}$ teaspoon ground ginger. |
| 2 large tablespoons black treacle. | Blanched almonds. |
| $\frac{1}{2}$ teaspoon ground mixed spice. | |

Rub fat into flour, add all dry ingredients except soda and mix well. Dissolve soda in milk, add treacle to dry ingredients, and then milk and soda and almond essence, and beat all together very thoroughly.

Line a baking tin with greased paper, place mixture in, put on almonds and cook in very slow oven for 2 to 2 $\frac{1}{2}$ hours.

Date Balls

- | | |
|---------------------------------------------------------|-----------------------|
| 1 $\frac{1}{2}$ cups chopped stoned dates | 1 dessertspoon honey. |
| $\frac{1}{2}$ cup milled walnuts or any nuts available. | Pinch ginger |

Mix honey, chopped dates and ginger and half the walnuts together. Make into balls. Roll in milled walnuts. A little ginger added to the honey will enhance the flavour.

Date Sandwiches (Toasted)

- | | |
|----------------------------|------------|
| 2 slices wholewheat bread. | Margarine. |
| 2 oz. stoned dates | |

Toast the bread, and while still hot, slit in half. Spread each cut side with margarine. Chop up the dates and spread evenly over, then put the other half back on top, so that the sandwich has the two toasted sides outwards.

May be put in the oven to keep hot if liked.

Delicious also with cheese or other sweet or savoury fillings.

Dates (Stuffed)

- | | |
|----------------------------|----------------------------------------|
| 12 large soft dates. | 1 dessertspoon honey. |
| 1 oz. mashed potatoes. | $\frac{1}{2}$ teaspoon almond essence. |
| 1 dessertspoon Soya flour. | |

Mix potatoes, Soya, honey and almond essence. Slit dates lengthwise, remove stones and fill each cavity with paste.

"Health for All" Savoury

This is an extremely good dish, very tasty, very nutritious, quick and easy to prepare and capable of many variations.

- | | |
|------------------------------------------|---------------------------|
| 1 lb. fresh, tinned or bottled tomatoes. | 4 tablespoons rolled oats |
| 3-4 oz. grated cheese | 3-4 oz. milk. |

Thoroughly grease a large pie dish. Put a layer of oats and grated cheese in the bottom, then a layer of tomatoes, then another layer of cheese and oats, the rest of the tomatoes, then another layer of cheese and oats to finish off, with a sprinkling of cheese on the very top. Add milk.

Bake in a fairly quick oven for about half an hour. The oats swell and absorb the moisture, and it should be brown on top.

Cooked leeks, marrow or spinach can be used instead of tomatoes. Carrots, celery, peas or beans are also an excellent change, but if they are used add rather more milk.

Honey Tea

1/3 glass fresh milk.

2/3 glass hot water.

1 teaspoon honey.

Combine together and sip slowly.

Muesli (enough for one person)

1 tablespoonful best quality rolled oats or medium oatmeal, soaked overnight in 3 tablespoons cold water or milk or fruit juice.

1 large ripe eating apple (or 2 small ones).

1 teaspoon honey or black treacle.

1 dessertspoon fresh raw lemon juice, when available, or sieved black-currant purée, raw blackberry juice or other raw juices.

1 dessertspoon chopped nuts, if available.

1 dessertspoon chopped figs, prunes, raisins or dates.

2-4 tablespoons top milk, if available, or just plain milk or diluted nut cream, or evaporated milk.

Just before serving grate the apple into the soaked oats, without peeling. (The apple should first be wiped and the top "eye" and any damaged parts or marks cut out, particularly removing any core if damaged.) Stir in the fruit juice, half the milk and raisins, put in a fruit saucer, pour rest of milk round, put a hole in top and put honey or treacle in this, and sprinkle nuts over it.

Other fruits can be used in season, and in the winter an excellent Muesli can be prepared from soaked dried fruit. Prunes are particularly acceptable if stoned and well chopped after being thoroughly softened. A tablespoon of grated raw carrot mixed in gives the raw element, and no other dried fruit is needed, but the addition of lemon juice and honey and top milk or nut cream is desirable, and also a few nuts.

Nut Mince

6 oz. grated nuts (or 4 oz. nuts and 2 oz. brown breadcrumbs).

1 oz. margarine.

1 tablespoon wholewheat flour.

1/2 pint vegetable broth.

1 dessertspoon Yeastrel.

Melt the margarine and stir in flour, cook for a few minutes and add vegetable stock and cook for five minutes. Add Yeastrel and stir in well, add grated nuts without further cooking, and serve at once on a hot dish. (Nuts are more digestible uncooked than cooked.)

Nut Slices

2 oz. margarine.

4 oz. milled nuts.

4 oz. Allinson's rolled oats.

2 oz. brown sugar.

Pinch of salt.

Melt fat and sugar in basin over hot water. Add nuts and salt, and work in oats. Press out firmly on a greased baking tin and bake in a slow oven until just golden brown. Cut into slices, but leave in tin to cool.

Oatmeal Soup

2 oz. cooking fat.

4 level tablespoons rolled oats.

1/2 cup each diced carrots, sliced runner beans, peas, chopped leeks.

1 quart vegetable stock.

1/2 pint milk if available, or household milk.

1/2 teaspoon chopped marjoram.

Celery salt. Grated cheese.

Heat fat in large saucepan, add oatmeal, stir and cook gently for five minutes. Add stock and bring to boil. Add all the vegetables,

celery salt and marjoram. Simmer gently for $\frac{1}{2}$ to $\frac{3}{4}$ hour. Add milk, if available, heat up but do not boil, and serve. A sprinkling of grated cheese on each plateful is a nice addition.

Olive Oil

This is a useful dressing, especially for grated raw carrots or chopped cabbage. It can also be used with discretion in place of fat in cakes, etc.

Peel and Core Water

Apple or pear peels and cores.

Brown sugar.

Put all peels and cores into a saucepan, add cold water (enough to cover them); put on closely fitting lid and simmer gently for about half hour. Sweeten with sugar.

Prune Pudding

$\frac{1}{2}$ lb. dried prunes (covered previously with hot water and left for 24 hours to soak in a warm place, simmering for $\frac{1}{4}$ hour if necessary to soften before using).

$\frac{1}{2}$ breakfast cup rolled oats.

1 large tablespoon syrup.

1 oz. margarine.

Grease a pie dish and sprinkle lightly with rolled oats. Arrange prunes in the pie dish. Make juice up to 1 cup with water if necessary. Warm syrup and margarine, stir in rolled oats and add the prune juice. Pour this mixture over the prunes and bake in a moderate oven for 20 to 30 minutes.

Rusks (Savoury)

4 slices wholewheat bread.

4 tablespoons strong vegetable stock.

1 dessertspoon Yeastrel (or Marmite).

Cut the bread into squares. Dissolve Yeastrel in vegetable broth and pour on to a saucer.

Quickly dip the bread squares into the saucer, wetting both sides and draining off excess. Put in a greased baking tin and bake in a cool oven until crisp.

Salad (Children's Teatime Salad)

For each child allow:

3 or 4 medium lettuce leaves (or raw sprouts or cabbage heart. These may be minced, but try serving sprouts cut in halves, or cabbage heart in a slice).

1 tablespoon grated raw carrot (or 1 whole carrot).

1 tomato or 2 to 3 purple sprouting broccoli flowers.

1 dessertspoon tinned beans.

1 dessertspoon diced cooked potatoes dressed with 1 teaspoon minced parsley in 1 dessertspoon of milk.

1 dessertspoon grated cheese.

Few sprigs watercress.

Serve on individual dinner plates.

Put the lettuce leaves in a little pile at the edge of the plate, then the sliced tomato or broccoli, then the potato and parsley, then the carrot, then the watercress and then the tinned beans. This should have completed the circle round the plate. In the centre put the grated cheese or chopped hard-boiled egg.

Sandwiches

Properly made sandwiches are always very popular, and often are the best way of introducing children to salads if they have not been brought up to eat salads regularly.

Good wholewheat bread should be used, and a very sharp knife. Always cut the bread thinly, and if the butter is hard, cream it, but do not let it become oily. Be very generous with the filling, and be careful not to overdo any flavouring, such as Yeastrel. Watercress, tomato, lettuce, grated raw carrots and parsley, chopped raw cabbage heart, very young spinach leaves and mint are good fillings.

Scones

$\frac{1}{2}$ lb. wholewheat flour.	2 oz. natural brown sugar.
$1\frac{1}{2}$ oz. cooking fat.	4 oz. raisins (or sultanas).
$\frac{1}{2}$ small teaspoon bicarbonate of soda.	1 small teaspoon cream of tartar.
A little milk (sour for preference).	

Mix soda and cream of tartar with flour, lightly rub in fat, add sugar and raisins and mix. Mix to a stiff dough with milk, using a knife to mix it.

Roll out lightly to $\frac{1}{2}$ -inch thickness and cut out with a small round cutter.

Place on floured tin and bake in a quick oven until cooked and lightly brown (about 20 minutes).

Sour Milk Dressing

1 teaspoon sugar or honey.	Sea salt.
1 cup thick sour milk.	

Beat up the milk with the sugar and flavour to taste with salt.

Steamed Pudding

6 oz. wholewheat flour.	2-3 oz. margarine.
1 oz. sugar.	2 tablespoons treacle.
1 level teaspoon baking powder.	Pinch of salt.
1 level teaspoon ground ginger.	A little milk.

Mix flour, baking powder, salt and ginger together, and "chop in" margarine with two knives. Add sugar, treacle and a little milk and beat well.

Half fill a well-greased pudding basin, cover with greased paper and steam for $2\frac{1}{2}$ hours. Serve with black treacle.

For variety add 2-4 oz. dried fruit.

Tomatoes (Stuffed)

For each child allow:

1 firm ripe tomato.	Chopped mint or parsley.
$\frac{1}{2}$ hard boiled egg or 1 dessertspoonful grated cheese.	

Skin the tomato by dipping it into boiling water for half a minute and then peeling.

Cut off the top of the tomato and carefully scoop out the centre and pulp. Mash the egg (or cheese) and mix it lightly with the scooped-out tomato (if there is too much tomato pulp use the rest in soup or broth). Add the mint or parsley and put back into the tomato case. Put top on, and put a small sprig of parsley on top.

Serve with salad or green vegetables.

Tomatoes (to Skin)

Tomatoes are best eaten with their skins, but some people prefer them peeled. To do this dip tomatoes into boiling water for half a minute. The skins then come off easily.

Vegetable Broth

1 onion.	A leek or trimmings of leeks.
Head of celery (keep heart for salad).	1 large grated raw carrot.
Pieces of any raw vegetables, such as	1 teaspoon Yeastrel.
cabbage leaves (in moderation).	Parsley.
Pea pods.	

Wash all vegetables, and remove any damaged parts and cut into small pieces *without* peeling. Put into pan and just cover with cold water. Cover closely and simmer for $\frac{1}{2}$ hour. Strain and add Yeastrel. A splendid health drink.

Vegetables (Creamed)

Practically all vegetables can be served "creamed". The cooked vegetables, skinned if necessary, like beetroot, and chopped up small, should be stirred into a plain sauce made of vegetable stock and milk and flour and margarine, or else sieved before being mixed with sauce. As a change and for variety, the sauce can be flavoured with Yeastrel or finely chopped parsley.

Suitable for artichokes, aubergines, beetroot, broad and runner beans, broccoli, brussels sprouts, red cabbage, cauliflower, celery (keeping some heart for salads), celeriac.

Vegetable Broth (Raw)

$\frac{1}{2}$ lb. carrots.	1 pint cold water.
1 lb. prepared outer stalks and leaves of celery.	

The outer stalks and leaves of celery are frequently thrown away, but should always be washed and put in the vegetable stockpot. Alternatively they make excellent raw broth.

A good head of celery can usually be divided into three sections:

(a) The heart, for salad.

(b) The surrounding section, for a cooked vegetable.

(c) The outer stalks and leaves, for broth.

For raw broth clean these outer stalks, cutting away any damaged parts, but do not string. Cut mud and roots off "bun", and wash a proportion of the leaves using the youngest available ($\frac{1}{2}$ -lb. leaves to $\frac{1}{2}$ -lb. prepared stalk is a good proportion). Then chop up the leaves and stalk as finely as possible, and put in a large pan with the cold water. Scrub the carrots and remove any damaged parts, and grate into the celery and water, stir well and cover and leave to soak for half an hour. Strain and press out all the water, and drink immediately.

When celery is unobtainable use carrot and mint with only half the water.

Wholewheat Bread

2 lb. 100 per cent. wholewheat stone-ground flour.	1 level dessertspoonful sea salt.
2 oz. yeast.	1 teaspoonful brown sugar.
	About $1\frac{1}{2}$ pints warm water.

Put the yeast, sugar and about 4 oz. warm water in a basin.

Mix well and leave in a warm place to "work" for ten minutes.

Mix salt into flour and put to warm.

Stir the worked yeast, pour it into centre of warmed flour and add half the warm water. Mix thoroughly with a spoon, adding more water to form a nice soft dough. Cover with a clean cloth, and leave in a warm place to rise for about $\frac{1}{2}$ to $\frac{3}{4}$ hour.

Turn out on to floured board, knead lightly for one or two minutes, divide into two and knead each piece to a smooth loaf. Put into two lightly greased and warmed bread tins, cover with a cloth and leave in a warm place to rise again (about 10 to 15 minutes) until they are $\frac{1}{2}$ as large again. (A portion of the dough can be made into individual rolls for a change.)

Put into fairly hot oven (regulo 7) and bake for about $\frac{3}{4}$ hour. They should sound "done" when tapped on top. Experience soon teaches the right note.

Turn out on to wire racks to cool.

An alternative method is to use a little more water and to omit the first rising for the dough, also the kneading, and to put the dough straight into the tins to rise by $\frac{1}{2}$. Usually about 20 minutes, but it depends on how much yeast is used, temperature, etc.

The addition of 2 oz. fat, 2 oz. brown sugar, 1 teaspoonful ground spice and $\frac{1}{4}$ lb. raisins to half the dough makes a very good spice fruit loaf. This takes longer to rise than the plain bread.

Wholewheat Pulled Bread

$\frac{1}{2}$ wholewheat loaf.

Tear the loaf into rough pieces about 1 inch cube. Put the pieces into a baking dish and crisp to a light-brown in a cool oven.

Stale crusts or pieces of bread or toast may also be made into "crispies" like this.

Breakfast crispies, as a substitute for flakes, can be made by cutting thin slices of wholewheat bread into tiny squares ($\frac{1}{4}$ in. to $\frac{1}{2}$ in.) and baking in a cool oven until crisp and golden brown.

SOME USEFUL EXTRAS

Health food stores supply some little-known but useful products not normally stocked by grocers.

A few specially useful for children are:

Apple juice (bottled).

Dried bananas.

Froment.

Frugrains.

Fruit and nut cakes.

Nuts (for vegetarians only during rationing).

Nut cream.

Nut meats.

Savormix.

Vecon.

100 per cent. wholewheat flour.

Yeastrel.

APPENDIX II

BRIEF OUTLINE OF ANATOMY AND PHYSIOLOGY

A human being is made up of:

- (a) Head.
- (b) Body.
- (c) Limbs.

It is given rigidity and protection by the bones of the skeleton. It is given movement by the joints and muscles.

The body functions by means of the following six systems:

- (1) Digestive system.
- (2) Respiratory (breathing) system.
- (3) Circulatory system.
- (4) Excretory or eliminating system.
- (5) Nervous system.
- (6) Reproductive system.

The following five senses are all closely connected with the nervous system:

- (a) Seeing.
- (b) Hearing.
- (c) Touching.
- (d) Smelling.
- (e) Tasting.

There are also numerous glands in the body whose secretions affect the health and general working and stability and happiness of the individual enormously.

(1) Digestive System

This consists of one continuous tube called the alimentary canal beginning with the mouth and teeth and passing through the chest, swelling out at the stomach, and then continuing as many feet of intestine coiled up in the abdomen, the last section being called the rectum and the final opening the anus.

Various glands, like the salivary glands in the mouth, add digestive juices to the food eaten, and when these juices have converted the food or some part of it into a suitable condition this is absorbed by the walls of the intestine for use in the body.

The first stage of digestion takes place in the mouth, and in this stage the food should be thoroughly well broken up by the teeth and mixed with saliva, if the other processes in its journey along the alimentary canal are to proceed at maximum efficiency.

Hence the advantage of teaching children to chew their food from their earliest days.

All the food that cannot be absorbed, and the waste or unused part is passed along the intestine by its regular but unnoticed contractions, and collected together in the rectum for removal through the anus. Since new food comes regularly into the body several times every day, the wastes should be got rid of equally regularly.

Hence the importance of training the child from its early days in a morning and evening evacuation of the bowels.

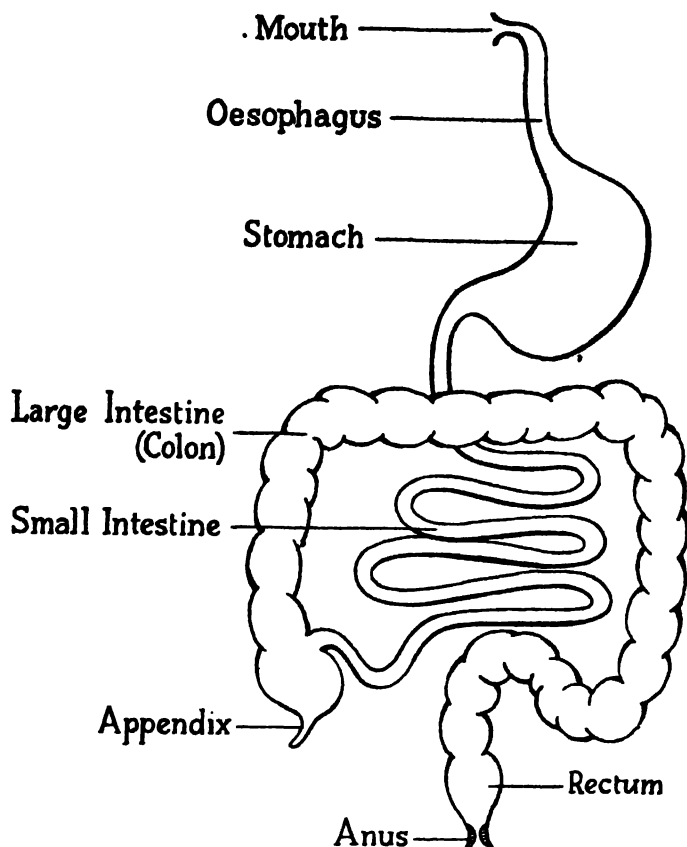


Diagram of the alimentary canal.

(2) Respiratory System

This consists of:

- (a) The lungs (situated in the chest).
- (b) The tube from throat to lungs.
- (c) Two bronchial tubes.

The proper entrance to the lungs is through the nose. Both the tube to the lungs and the tube to the stomach go down the neck, but they are quite separate and there is a clever mechanism which sees to it that food when swallowed does not go into the lungs but does go to the stomach.

The lungs supply the body with fresh air. The more fresh air that is breathed into the lungs, and the deeper the breath taken, the more used and stale air is breathed out. In this way the lungs can be well developed and the body supplied with the optimum amount of fresh air. There is no other way of getting fresh air into every part of the internal structure of the body.

Hence the advantage of encouraging the habit of a few deep breaths of fresh air every morning.

(3) Circulatory System

This consists of:

- (a) The heart.
- (b) The arteries.
- (c) The veins.
- (d) The capillaries.
- (e) The blood.

The heart pumps the blood, carrying waste gaseous products, to the lungs, where transfusion takes place and the blood gets rid of the waste gases and takes up a supply of fresh oxygen in their place. The blood, by the pumping action of the heart, is carried to all parts of the body and spread out through the tissues by means of the capillaries.

The blood gives up to the tissues the fresh oxygen and collects the waste gas (carbon dioxide) from them.

The blood also absorbs the food digested in the alimentary canal, and carries this round as well as the oxygen, delivering it to the various tissues. The better and more complete the food eaten is, and the more mineral salts and vitamins it contains (up to the optimum amount), the better will the various tissues of the body be nourished, and the more efficiently will they carry out their various functions. The blood also collects from all these tissues their waste products, mainly water and urea, and carries them away to the kidneys for excretion.

If the food is right there will only be such wastes as the blood can easily carry away and the kidneys dispose of. If the food is such as produces an excessive amount of waste, or if it is deficient, then the individual cells of the various tissues will be unable to function at their maximum efficiency, and the whole body will therefore be below par—that is, not in perfect or ideal health.

Hence the importance of giving the child the best possible food.

(4) Excretory System

This consists of:

- (a) The two kidneys.
- (b) Tubes from them to the bladder.
- (c) The bladder.
- (d) Tube from the bladder to the external opening.
- (e) The vulva (external opening, female only).
- (f) The penis (male only)

A separate excretory organ is the skin

The kidneys collect the dissolved impurities from the blood, concentrating them into a strong solution of waste so as not to excrete an unnecessary amount of water out of the system. This fluid is then stored in the bladder and evacuated at intervals throughout the day. Long retention is undesirable.

An unbalanced diet which produces an excessive waste in the tissues gives the kidneys extra work in trying to excrete this waste. Some water is regularly lost in the process of ridding the body of soluble wastes.

Hence the importance of drinking fresh pure water.

A good deal of perspiration (or waste materials) is also excreted by the skin, which, to function properly, needs the free access of air. Light is also good for it, so the skin should be kept clean by washing

and stimulated and alive by cool air, cold water, rubbing and sunlight, and should not be made sluggish, inert and pale by being overclothed and not exercised.

(5) Nervous System

This consists of:

- (a) The brain.
- (b) The spinal cord.
- (c) The nerves.

The nervous system controls all the actions of the body, both the conscious actions and the unconscious or reflex actions such as go on internally or automatically.

The spinal cord runs from the brain, inside the spinal column of little hollow bones, and from between these bones pairs of nerves branch off to all the parts and all the internal organs of the body.

If these nerves are damaged in any way, or if there is pressure on them caused by slight displacements of any of the bones in the spinal column, then that section of the body controlled by any nerve suffering injury or pressure cannot function at maximum efficiency.

Hence the value of manipulative treatment in some diseases.

(6) Reproductive System

There are two separate reproductive systems:

- (a) The male reproductive system.
- (b) The female reproductive system.

(a) THE MALE REPRODUCTIVE SYSTEM.

This consists of:

- (i) The sperms.
- (ii) The testes that generate the sperms, situated in the external sac or scrotum.
- (iii) The fluid in which the sperms are maintained (seminal fluid).
- (iv) Tubes leading from the testes.
- (v) The external organ, or penis.
- (vi) The loose skin covering the end of the penis, called the foreskin.

In children all these organs, though present, are immature, and though the child does not use them they are interesting to him as parts of his body. The mother should give the parts their correct names and answer all questions about them in a truthful and simple way.

(b) THE FEMALE REPRODUCTIVE SYSTEM

This consists of:

- (i) The Ova.
- (ii) The ovaries.
- (iii) Tubes from the ovaries to the uterus.
- (iv) The uterus or womb.
- (v) The vagina, or passage to the exterior.
- (vi) The hymen.
- (vii) The mammary glands (not actually part of the reproductive system though intimately associated with it).

The ovaries generate the eggs, or ova, which are discharged at monthly intervals from the age of about fourteen to the age of about forty-five.

The mature ovum passes into the uterus, and if it is not fertilized in the course of a day or two passes on out of the vagina. Fourteen days after it has matured there is a completion of the cycle and the inner lining of the uterus and a certain accumulation of blood are discharged from the uterus as the menstrual flow.

If the ovum becomes fertilized through the presence of sperms in the uterus it will become attached to the wall of the uterus and gradually undergo changes and developments for nine months until it is a full-term baby. The uterus then contracts on it, and the opening of the uterus stretches and the baby is expelled from the uterus, that is, it is born.

In most, but not all, females the opening of the vagina is partially closed by a skin called the hymen. After intercourse the hymen no longer even partially closes the vagina opening.

The Five Senses

Seeing

This process is carried out by the eyes, from which pictures of what the eyes are focused on are transmitted to the brain. If the eyes do not work harmoniously together, or if one eye is of a different strength or focus from the other, there may be difficulty in seeing some things clearly, or there may be eyestrain resulting in headaches.

Sometimes children used to be thought to be dull at school simply because eye trouble made it impossible for them to see clearly what was on the blackboard.

These days school doctors are very much on the alert to detect defects in eyesight. If at all possible every effort should be made to correct defects and strengthen weaknesses of the eyes through the medium of carefully designed eye exercises and attention to diet, particularly including such foods as raw carrots to benefit the eyes, rather than by resorting at once to glasses. Glasses once adopted are often adopted for good, whereas many eye defects will respond satisfactorily to expert treatment making glasses unnecessary, if started in good time.

Eyes are exceedingly delicate and complicated organs and can easily be permanently strained or damaged in childhood. For this reason mothers should watch and see that their children do not read in a bad light or too small print or with the books too close to their eyes. Cinema screens can strain the eyesight, especially if the child is in a front seat or goes frequently.

Hearing

The ears contain a delicate internal mechanism for transferring sound to the brain. Usually they are not easily damaged, but children should not be allowed to put things into their ears.

Earache can be exceedingly painful, and also frightening to the parents, for fear of mastoid. Children who are healthily fed and who, if out of sorts, are treated on the lines suggested in this book, are most unlikely to suffer from mastoids. These are results of an accumulation of poisons needing excretion that find their expression in the inflammation in the ear.

If a child seems to be "hard of hearing" it may simply be that he is not interested or that he has been over-trained, and so has developed a habit of withdrawing himself and *not* hearing, but there

may be nothing wrong with his hearing apparatus. Some may have a tendency to have accumulations of wax in the ears, but this can easily be washed out by the doctor.

Touching

The sense of touch is centred in the skin, some areas being much more sensitive than others. Pleasurable sensations are received through the skin, and the child senses his mother's love by the way she touches and handles him.

He will also gain pleasurable sensation by putting his fingers and other objects to his sensitive lips.

Smelling

The sense of smell is situated in the nose. It is useful to man, pleasant smells attracting him and unpleasant ones repelling him, but it is not the powerful or selective sense in man that it is in wild creatures.

Tasting

The sense of taste is situated in the tongue. Babies have it quite well developed, and as a result of this may object to new tastes. For this reason new food should always be introduced in small amounts, to educate the baby gradually to the idea of different and varying tastes in his meals, and any special personal dislike respected. With well-brought-up children it should be possible to cater for their reasonable likes and dislikes and still give them a good and well-balanced diet.

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